

THE LINEN INDUSTRY OF FIFE IN THE LATER EIGHTEENTH AND NINETEENTH CENTURIES

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SYNOPSIS

The thesis sets out to narrate and explain the growth and development of the Fife Linen Trade in the later Eighteenth and Nineteenth centuries. The introductory chapter places the industry in the context of the Scottish economy from the Union of 1707. It suggests, that there were a number of forces at work, determined to encourage the growth of Scottish industry and that the landowning class played an important part, notably in the Board of Trustees, whose records are used as a focus for the study of the development of the Fife trade in the latter part of the Eighteenth century. The Board's achievements in relation to Fife are assessed.

The coming of waterpowered spinning mills is then discussed and the relationship between prospective millowners and landowners is examined, landowners' long connection with the exploitation of their water resources being noted. The first mills are examined in detail, with particular reference to location, the nature of the entrepreneurs and the supply of capital, both long and short term. The industry's dependence on widely extended and poorly secured capital, leading to chronic weakness is particularly noticed. The new managerial and technical problems faced by the early millowners are also commented on.

The structure of the manufacturing trade at the end of the Eighteenth century is studied, the growth of the regional centres, Kirkcaldy and Dunfermline being noted. There follows an examination of the scale of business, the type of products being made in Fife, the supply of raw materials and the marketing of finished goods. Attention is drawn to the condition of the Handloom weavers in the period before their more celebrated decline.

The spinning and weaving trades are closely examined in the era of governmental scrutiny in the Eighteenthirties. Special attention is paid to the examination of business failure in a period of stagnation, which saw the rationalisation of the spinning trade. Factory life is examined and the unanimous condemnation of conditions in wet spinning mills noted. It is suggested that a clear understanding of overall conditions depends much on an analysis of the career of James Stuart, the early Factory Inspector. The lengthening hours and declining wages of the handloom weavers are also examined. Dunfermline's weavers are considered in detail in the worst years of depression. The weavers' losing battle to maintain their position in society is particularly noted.

In the final chapter, the fortunes of the Linen Trade in the second half of the Nineteenth Century are discussed. It is shown how Fife was ill-prepared to meet the short-lived boom of the American Civil War Years, which encouraged the establishment of power loom factories. The absolute decline of the flax spinning industry in Fife is discussed and the thesis concludes with an examination of the industry's employers and work people as it embarks on the Twentieth century.

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The Linen Industry of Fife in the Later
Eighteenth and Nineteenth Centuries

by

David I.A. Steel

Dissertation presented in application for the Degree
of Ph.D. in the Department of Modern History in the
University of St Andrews.

St Andrews 1975.



Th 8691

I hereby certify that David Steel has been engaged upon research work under my supervision and that he has fulfilled the conditions of Resolution no. 1 and that he is qualified to submit the accompanying thesis in application for the degree of Doctor of Philosophy.

I declare that this thesis has been composed by me, that the work of which it is a record has been done by me and that it has not been accepted in any previous application for a higher degree. The study was commenced in October, 1970 under Ordinance General No. 12.

28th March, 1975.

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ABBREVIATIONS

B.O.T.	Board of Trustees
B.P.P.	British Parliamentary Papers.
C.S.	Court of Session
F.A.	Fifeshire Advertiser
F.F.P.	Fife Free Press
F.H.	Fife Herald
N.L.S.	National Library of Scotland
N.S.A.	New Statistical Account
O.S.A.	Old Statistical Account
S.C.	Select Committee
S.R.O.	Scottish Record Office

Glossary of terms used in Linen production

Lintseed

The raw material of all linen goods is the flax plant, linum usitatissimum, generally called Lint in Scotland. The Lintseed is sown in the spring, a well-tilled, rich but not too heavy soil being ideal. The crop grows best where it can benefit from a damp spring and grow steadily through the summer. Flax is harvested when the stems of the plant begin to turn yellow. If the flax is pulled early it will be better for spinning but the seed will be of little use; if left in the ground, then the seed only will be useful for its oil.

The flax crop is pulled and not cut, because the best flax for the spinner is near the base of the plant. Once pulled, the flax is then rippled to remove the seeds by passing the plant through a metal comb.

Retting.

Then follows the process of retting, that is rotting the flax so that the bark of the plant can be separated from the pith. The process is carried out by soaking the flax for several days in water. Owing to the polluting nature of the water after flax has been retted in it, it was common to steep the flax in specially dug lintholes, as can be seen on Bankhead Moss near Peat Inn. The Dutch agricultural system with canals between strips of land was especially suited for this process.

Scutching

After retting flax is scutched by beating it with wooden mallets, either by hand or mechanically in a scutch mill to separate the pith from the bark of the plant. The flax is then heckled, this is the process of dressing the flax in a Lint Mill, or flax dressing department of a

Heckling

spinning mill, whereby the long fibres of the plant, the line are separated from the short fibres, the tow, by pulling the flax back and forward over sets of increasingly fine combs. The tow fibres which have been separated in the heckling process must then be carded to arrange them in a parallel form prior to spinning.

Roving

In spinning mills the flax line and carded tow is then roved by putting it through a machine which arranges the fibres in a thick sliver suitable for spinning out into yarn. This process was originally part of the handspinning process, at first with the distaff and later, a spinning wheel. In the mill the flax is extruded on a spinning frame containing a large number of spinning spindles. Where thread is to be made the yarn is twisted to give it added strength.

Spinning

The/

Reeling

The yarn is taken from the spinning frame and then reeled on a reel of 90" which is the length of one thread. 120 threads equals one cut of yarn and 48 cuts equals one spindle of 14,400 yards. The grist or fineness of the yarn is determined either by the number of cuts to the 1 lb. or the number of lbs of yarn in 14,400 yards.

Boiling
Bleaching

Prior to weaving, yarn has to be cleaned by boiling it. Where coloured goods are to be made or plain unpatterned goods, the yarn must then be bleached or dyed. Yarn is bleached at a bleachfield where it is whitened by alternate immersions in alkali and acid coupled with exposure to sunlight. Soft, clean water is essential for satisfactory bleaching.

Warping

The stronger warp threads which are stretched long ways in the loom are then wound on a warping mill and tied in warped chains preparatory to being put on to the beam of the loom on which the web of cloth is to be woven. The finer weft threads are wound on to pirns for placing in the shuttle used to interweave the warp and weft threads on the loom.

WindingWeaving

Once the web has been beamed, the warp threads are passed through a reed, a comblike mechanism divided into a number of splits or openings, the number of which, combined with the grist of the yarn determine the fineness of the finished web. As the size of the reed is measured according to the Scottish all of 37" the fineness of cloth has been traditionally measured in terms of the number of hundred splits per all. Thus a 10⁰⁰ cloth is made with one thousand splits. The same measurement can be expressed in terms of porters. One porter equals 20 splits thus a 10⁰⁰ cloth is the same as a 50 porter cloth.

Finishing

Fine cloths such as Damask and Diaper are bleached in the piece and are therefore taken to the bleachfield after weaving. The cloth is then ready for the three finishing processes of Beetling, Calendering and Lapping. Beetling is the hitting of the cloth with wooden mallets to flatten and smooth it, according to the finish required. The cloth is then calendered by passing it through hot and cold rollers to give it an even, pleasing appearance. This is especially necessary for fine goods. Finally the cloth is lapped. This is the folding of the cloth and the pressing of the webs to facilitate packaging and transporting.

The/

The products typical of Fife's output are as follows:-

- I. Fine patterned linen. (suitable for table cloths, counterpanes and napkins) The principal product is Damask. Diaper is a coarser cloth for similar use but made only with a simple diamond pattern. Hackaback is fine cloth made into towelling by throwing the weft threads up alternatively to form a rough surface.
- II. Sheetings. Holland is fine cloth suitable for window blind, coarser than this was the medium quality cloth, Silesia.
- III. Checked and Striped Linens. Used particularly for shirtings. Such goods were often mixed with cotton. Tick a strong, closely woven blue and white striped product, used for covering mattresses and pillows.
- IV. Coarselinens. Dowlas is a heavy sheeting for household use Osnaburg, which became the principal product of Dundee was used largely for packing goods before the introduction of jute bagging.
- V. Sail cloth. Canvas is strong heavy linen used for sails and tarpaulins and latterly for the manufacture of floorcloth before the introduction of jute backing from the eighteenth century. It was made on very wide looms. Duck used for small sails and tent making is lighter than canvas.

v

Important names in the Fife Linen Trade

- James Aytoun "father of flax spinning" - Mill at Kinghorn 1792-1803, worked at Haugh Mill, Kirkland Mill and later set up own Mills at Abbotshall. His son J.P. Aytoun invested in the floor cloth trade.
- Arthur Family. Owned mills in Kinghorn 1816-1842.
- Erskine Beveridge - Prominent hand-loom manufacturer built St. Leonards works in 1851, enlarged by his son. The works are still operating.
- John Crombie - Pioneer of developments in The Duraden - Blebo Mill 1799-1803 - Crombie was previously employed at the Kirkland Works.
- Dewars - Had a merchanting business in London, early powerloom developers in Fife.
- Drummond Family. This family is a good example of interconnecting in the Fife linen trade connected with the Development of Balgonie and Kirkland Works.
- Fergus family. Walter Fergus, Provost of Kirkcaldy and pioneer of spinning at Kinghorn. Partner in the Glasgow Banking Company and father of John Fergus of Strathore. 1800-1865, flax spinner at Prinlaws and M.P.
- Peter Greig & Co. - Manufacturing in Kirkcaldy since the early nineteenth century.
- Hendry Family - Long owned West Bridge Mill, Kirkcaldy. Daniel Hendry 1822-1892, a son of the Mill's founder, entered the firm of Hendry Whyte & Strachan, floorcloth manufacturers, 1870.
- Heggie Family - Manufacturers and dyers in Kirkcaldy, partners in Haugh Mill, built 1794.
- G. & J. Johnston - Manufacturers at East Wemyss since early nineteenth century.
- N. Lockhart & Sons - Ninian Lockhart, the firm's founder was a leading radical in early Nineteenth century Kirkcaldy. His grandson Sir R.C. Lockhart prominent in local government at the start of the twentieth century. Still producing Linen in Kirkcaldy.
- Millie/

- Millie family - Spinners and manufacturers at Pathhead till 1851.
- George Moon - Owned Russell Mill, Springfield till his death in 1843.
- John Melville - Stampmaster at Dysart started the Prinlaws Works, 1792.
- Normand family - Built the first successful powerloom works in the area, 1847. Important manufacturers in Dysart till 1920.
- Robert Philp - Large manufacturer in early Nineteenth century, Kirkcaldy, left £70,000 for the benefit of poor childrens' education in the town and surrounding villages.
- Robertson family - Manufacturers in Dunfermline since Mid-Nineteenth century. Sir William Robertson 1857-1923 Lord Lieutenant of Fife at start of Twentieth century. Today, Hay & Robertson.
- Mark Stark - Principal manufacturer at Dunfermline in the last quarter of the Eighteenth century. Built the first mill, in the neighbourhood, Brucefield, 1792.
- Robert Stocks - Family in business in Kirkcaldy from 1805-1973. John T Stocks (1836-1898) was prominent in local government.
- J. G. Stuart. - Developed the Balgonie works with his relative Robert Baxter of Dundee. In 1860 he failed for over £100,000 with his partner J.M. Staig.
- P. D. Swan - Leading figure in Nineteenth century Kirkcaldy, Provost for 30 years. Largest spinner in the town and at Kinghorn till his failure in 1886. His father, William, was agent for the Glasgow Banking Company.
- Tullis Family - Came from St. Andrews founded the complex at Markinch which became Tullis Russells. From 1846 to 1957, the business was both a paper mill and a bleachworks.
- Alexander Watson - for many years manager at Kirkland Works, developed the mills in Duraden from 1856, till his death in 1860.
- David Yule - Built Tarvit Mill 1799. His family owned mills in Duraden.

CHAPTER ONE

The Linen Industry of Fife. The Early Years.

It is now over one hundred years since "The Linen Trade, Ancient and Modern"⁽¹⁾ first appeared but from the time A.J. Warden a merchant in Dundee produced his all/embracing study of the linen industry, little has been written on this important subject. The purpose of this thesis is neither to challenge Warden, nor to attempt to update his work but to describe the history of the trade in an area of the United Kingdom, where the production of linen goods remained an important industry throughout the Eighteenth and Nineteenth centuries. Fife has been chosen for this purpose, not only because of the extent of the linen manufacture within the county and the range of products produced but, also, because the production of linen goods continued an important industry in the towns of Fife, ^{This was so, even} when other centres such as Dundee had turned, predominantly, to the production of jute goods, or Manchester and Leeds to the production of cotton and wool respectively. Further, the linen industry of Fife is one of the few industrial subjects which can usefully be studied from the University of St. Andrews. (Fig. 1)

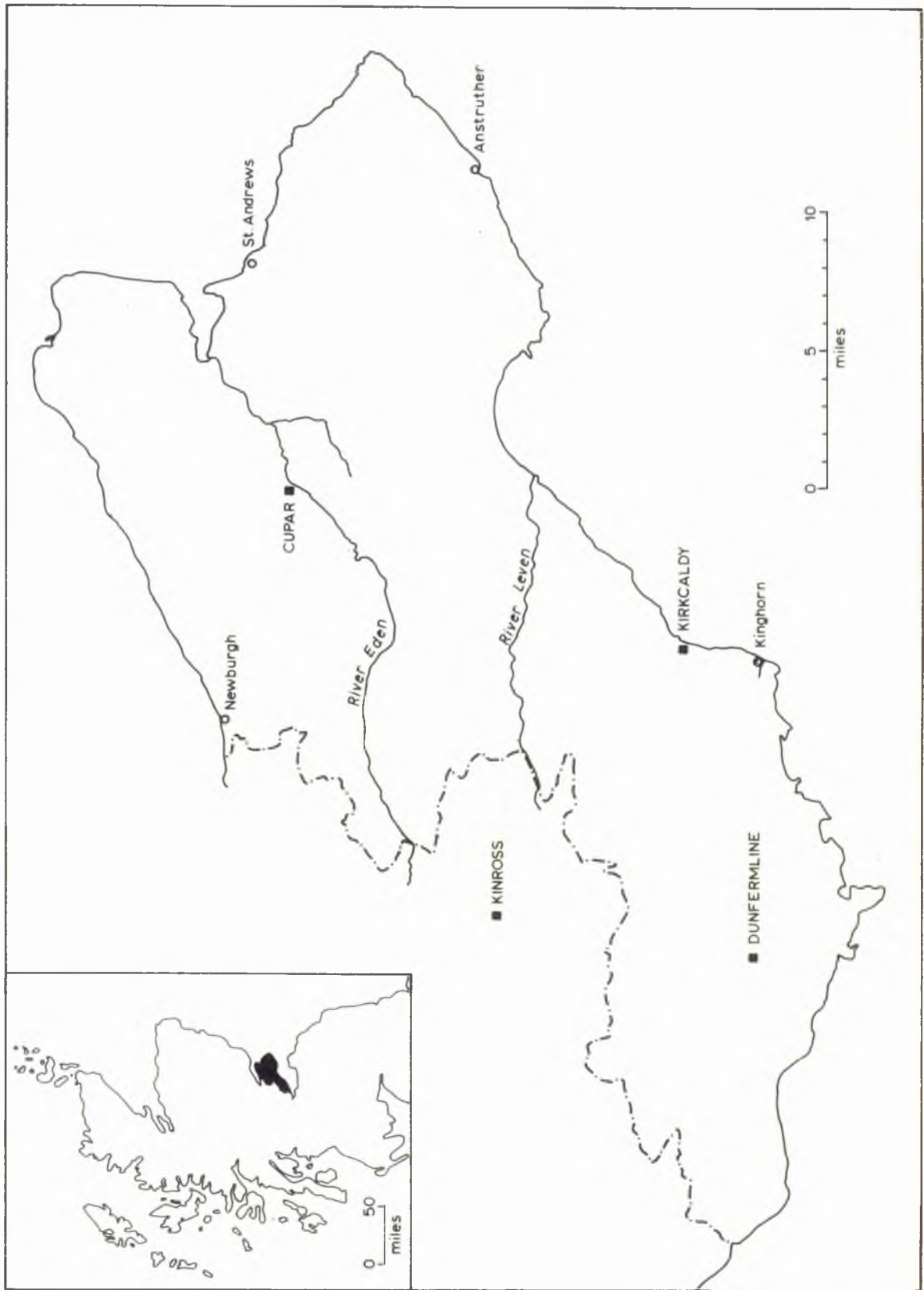
The thesis will first suggest the agents of growth at work in the environment of the Scottish economy in the Eighteenth century, concentrating particularly on the work of the Board of Trustees for Manufactures and Fisheries set up in 1727. The records of the Board which provide a focus for the study of the economy in general and the linen trade/

1. A. J. Warden, The Linen Trade, Ancient and Modern.

Figure 1

MAP SHOWING THE PRINCIPAL TOWNS AND RIVERS OF FIFE.

Fig. 1



trade in particular, will only be considered in so far as they effect the industry of Fife. Special attention will then be paid to the coming of mechanisation to the flax-spinning industry, preceded as it was by the spread of capital resources to the preparing and finishing trades along the river courses of Fife. The earliest sites for power spinning will be described in some detail. This discussion will be followed by an account of the handloom weaving trade in the important period before the handloom weaver and the spinning mill worker became the focus of governmental investigation in the Eighteen thirties. Making use particularly of contemporary official material, both Parliamentary papers and sederunt books in the sequestration of local business estates, a study will be made of life in the Fife Linen trade, in both the spinning and weaving branches. The problems facing employers and employees alike will be examined. The study will finish with an account of the introduction and development of powerloom weaving before and during the American Civil War, and an examination of the decline of flax spinning in the county in the last decades of the nineteenth century.

Although Eighteenth century Scotland remained largely a trading and agrarian economy this was a period of economic growth and opportunity for great landowners and small craftsmen alike as Scottish industry struggled to assert itself within the enlarged framework of the United Kingdom economy. Before 1707 the leaders of Scottish society had been aware of their country's backwardness and wanted to copy English methods. Legislation had been passed to encourage economic growth and new industry/

industry set up, notably the woollen manufactory at Newmills, founded in 1681. In spite of economic backwardness there were, however, significant economic developments in the Seventeenth century, notably the exploitation of the coal reserve and the manufacture of salt in Fife and the Lothians. Notwithstanding nationalist sentiment, Scotland could not compete, for political and economic reasons, with her richer, more densely-populated southern neighbour.

The Union of 1707 not only gave Scotland the short-term opportunity of recovering from the failure of the Darien scheme, a symbol of Scotland's inferior position, but brought many longer term benefits. The leaders of Scottish society could now study the developments taking place in England and move away from the narrow Calvinist fatalism which had previously dominated the commercial mind. Union, in spite of the Jacobite insurrections of 1715 and 1745, also brought much-needed political stability in which economic growth could take place. Scotland was fortunate, too, that the interests of landowners, professional men and industrialists were complementary; industry and the professions recruiting their labour from within the landowning class.

Not only did the Union re-orientate Scotland towards England and her colonies by bringing Scotland within the Navigation Acts but it opened up directly the large English market beyond Scotland's border. Further, whilst the Union forced Scotland to abandon those trades where she was competing directly and wastefully with England, she could concentrate on those industries which could be maintained. Roy Campbell/

Campbell suggested that the benefits of the Union "were most clearly demonstrated in the development of the linen industry".⁽¹⁾

For both economic and geographical reasons the linen trade had developed in Scotland over the centuries, notably in the Eastern counties, where sufficient population existed to prosecute the industry on a commercial basis. Scotland, in the Seventeenth century, a land of poor roads and unnavigable rivers, had to look abroad for the basis of her industrial expansion.⁽²⁾ Fife, bounded on the North, South and East by the wide estuaries of the Tay and the Forth with the steep Ochils to the West was largely isolated through history from the rest of Scotland and to a greater extent escaped the internecine conflict which characterised the country's history. Fife had also looked earlier than the rest of the country across the sea to England and beyond to the United Provinces and the Baltic. The Royal Burghs of Fife, dotted along the coast, many of them now long decayed, are a reminder of the importance of Fife in the economy of Scotland from medieval times. As early as 1700 says T.C. Smout "Flax and hemp were to Scottish commerce at Danzig and Königsberg what iron was to Sweden and wood to Norway, the *raison d'être* of trade."⁽³⁾ The connection too with the United Provinces was strong, the lasting influence being seen in some of the old ports' architecture, notably at St. Andrews and Dysart, whose coal and salt trade provided useful return cargoes for goods imported.

1. R.H. Campbell, *Scotland since 1707*. p.58.

2. T.C. Smout, *Scottish trade on the Eve of the Union* p.23.

3. *Ibid* p.162

imported to Fife.

At the beginning of the eighteenth century, the best linen cloth used in the country came from Holland and Scottish merchants were sometimes asked to bring back cloth with them. (1) Fine linen goods too were sent to Haarlem to be finished. The industrialised United Provinces were also able to provide the raw material - old iron - for the important nail making trade carried on at Pathhead, near Kirkcaldy. The cargoes of iron also provided ballast for the boats bringing in the light weight flax and dyestuffs of the linen trade. Although Scotland gradually became independent of Holland for the finishing of fine linens, she depended increasingly on the United Provinces and the Baltic States for the supply of flax, and on the Dutch connection with the East Indies for the supply of dyestuffs and mordants. Thus the East coast, therefore, began to concentrate on the production of those goods, which could best be made from Dutch and Baltic flax. A bill of lading of the "Princess Amelia" of Kinghorn which arrived on the 10th of June 1752 clearly illustrates the nature of the trade. (2)

‡ Barrel Pearl Ashes from Rotterdam

Cask with 60,000 goose quills.

37 flasks of Spa Water.

7 cwt. of old iron.

50 cwt. undressed flax, duty free.

1½ tons old iron

30 cwt undressed flax, duty free.

13 ditto

4½/

1. S.R.O. C.S. 96/1945. Account of an innkeeper in Rotterdam c.1710.

2. Kirkcaldy Museum. Miscellaneous papers. Bills of Lading 1752.

4½ tons old iron
 2 ditto
 10 cwt. undressed flax
 2 tons old iron
 10 cwt. flax
 4½ tons old iron
 Small quantities of indigo and argol for dyers
 5¼ barrels pearl ashes
 27 cwt. undressed flax
 21 cwt. ditto

As the provenance of the raw material largely determined the nature of Fife's products, the Eighteenth and early Nineteenth centuries were a period of imitation by the Fife manufacturers of Baltic, Dutch and Flemish products. By about 1830, however, Fife goods were able to compete even in their own markets. The best known of these products was Osnaburg, originally a product of Osnabruck in North Germany - Dairsie, near Cupar, was renamed Osnaburgh after the cloth; other coarse products were Dornick, after Doornick (Tournay) in Flanders and Dowlas, after Doulas in Brittany. Among the finer goods there were Hollands and Silesias. The Checks and Bengals of Kirkcaldy may owe their introduction to the Dutch connection with the Orient. The fact that Fife was, till the Union of the Crowns, a seat of Royalty, and that of many noble families had estates there, may account for the luxury products, such as table linen, being manufactured in Dunfermline. It may also account for the manufacture of sheeting and window blind, centred on Falkland

As/

As the century progressed, the increase in flax imports, mainly to Kirkcaldy and the concentration on the production in Kirkcaldy and Dunfermline, the largest towns in Fife, of quality goods in irregular demand, which depended for their sale on good bleaching and dyeing, encouraged the rise of capitalist manufacturers. This was especially so in Kirkcaldy and ensured that that town would play the leading role in the internally-generated developments of the future. It also meant, that the trade of Fife would grow differently from that of Ulster, where dependence on home-produced flax, retarded the growth of large scale capitalist manufacture till the Nineteenth century. In the Eighteenth century, therefore, increasing quantities of imported flax were processed in the Kirkcaldy area and then given out by manufacturers to their agents in the surrounding parishes to be spun by hand. (1)

In the era of agricultural underemployment, which characterises the history of agriculture before the developments of the second half of the century there was a close connection between the land and the linen industry. Farm hands wove and spun in the quiet periods and worked the land when needed, encouraged often by small payments in flax. Much of the Fife linen output was probably for home use and not brought to market. However, Smout suggests that even at the end of the Seventeenth century one-third to two-thirds of the value of Scottish exports was made up of linen. (2) Much of this was/

1. H. Hamilton. The Industrial Revolution in Scotland p.98.

2. Smout. op. cit. p.233.

was probably hawked about the country by chapmen, for there was an outcry when it was proposed to remove their licenses in 1785.⁽¹⁾

In the early part of the century Defoe noticed green cloth (unbleached linen) being made in Burntisland and along the coast of Fife which was in strong demand in England for printing⁽²⁾. David Loch in 1778 found the weavers of Leven making the same type of cloth "which meets with a rapid sale at the weekly markets holden on Saturday".⁽³⁾ This cloth was either sent away to markets in Edinburgh, Glasgow and Perth, sold locally at markets attended by the agents of the Glasgow and Edinburgh merchants or it could be purchased directly from the manufacturer. At Kirkcaldy, for instance, Defoe already found merchants who were trading with England.⁽⁴⁾

Markets were held all over Fife at different times of the year. George Barclay said of Dunfermline in 1723, that there was ... "a very considerable trade in table linen which is made and sold here at six annual fairs".⁽⁵⁾ In 1739 the Edinburgh merchants boycotted the Dysart June fair, because of the excessive charges levied in the town,⁽⁶⁾ and in 1753 they petitioned for a change of dates for the Inverkeithing fairs.⁽⁷⁾ As late as 1784 an Edinburgh merchant was/

1. G.M. Mitchell. The English and Scottish Cotton industry. Scottish Historical Review. Vol XXII (1925) p. 104.
2. D. Defoe. A tour through the whole island of Great Britain.p.162
3. D. Loch. Essays on the trade, commerce, Manufacturies and Fisheries of Scotland Vol. II p.44.
4. Defoe op cit. p.162
5. Quoted in A. Fernie, History of Dunfermline p.176.
6. A.S. Cunningham, Dysart Past and Present p.51.
7. W. Stephen. Story of Inverkeithing and Rosyth p.102.

was complaining about cloth bought at Leven market. (1) However, by the seventeen sixties the majority of East coast goods were being shipped by dealers on consignment to linen factors in London, the factor's commission being $2\frac{1}{2}\%$ and the freight insurance and profit or loss being borne by the seller. (2)

The opening of the London market increased the demand for Dunfermline goods whilst, at Kirkcaldy, a rising generation of capitalist manufacturers led by the firm of John Fergus and Son began to improve the quality of the colour in their Ticks and Checks and these goods too, began to compete with Manchester goods in the London market. The closing of the Virginia market in 1777 further increased the reliance on the London trade. The Board of Trustees, for its part, attempted to reduce this departure by setting up a Linen Hall in Edinburgh, in 1766 but sales were not encouraging. The richer capitalist merchants of Kirkcaldy and Dunfermline were by now able to sell goods on their own account. Much was also bought up by dealers who consigned to London. At Cupar, merchants bought up large quantities of Brown Linen in the surrounding towns. Loeh says that the principal merchant in Cupar "is supposed to purchase six or eight thousand pounds sterling worth of linen and yarn on his own account" (3)

If the small scale Scottish linen industry of the first decades of the Eighteenth century was to compete with foreign products its/

1. SRO B.O.T. Minutes NG 1/1/23. 21/7/1784.
2. ibid NG 1/1/18 4/12/1765.
3. Loeh. op. cit. p.50

its methods had to equal those of its competitors. Weavers and spinners, flax growers, preparers and finishers, had to be taught to work more efficiently and improved equipment was needed to give to give Scotland a chance. Fortunately, Scotland's powerful landowning class realised the industry's potential. Indeed, it became a patriotic duty in the Eighteenth century to promote the Linen trade.⁽¹⁾ The enthusiasm which sprang from the landowning class manifested itself in such bodies as the Honourable Society of Improvers in the Knowledge of Agriculture, founded in 1723, one of whose leading members was the Fife landowner, Hope of Rankeillour. Later, an original member of the Board of Trustees, he epitomises landed enthusiasm for the Linen trade, thus Lindesay wrote, "The Lint Mill upon the Water of Eden is a little above Cupar in Fife, belonging to Mr Hope, younger of Rankeillour, is brought to the greatest perfection and is a complete pattern to be followed by others who intend to erect Lint Mills and to follow this useful and beneficial trade. This gentleman has also begun another branch of business which will prove a great benefit to the manufacture, and, is hoped, will be no less profitable to himself viz. keeping heckles and skillful hecklers for dressing of lint for spinning."⁽²⁾ Hope was also associated with the ambitious Cupar Manufactory, the articles of which proposed a nine year plan for working all sorts of linen with a Joint Stock of £2,000, divided into shares of £12.10/- payable in three instalments. A cashier and clerk were to keep proper books and a fit person/

1. Hamilton. op. cit. p.76

2. P. Lindesay. The Interest of Scotland Considered. p.160

person was to be chosen by the copartners to be "master and overseer of the work." (1) The scale of the venture can be seen from the prospectus, table 1. (2) The Scheme attracted twenty-six subscribers but weaving stopped in 1733 on the failure of the London house to which goods were consigned.

The connection between Eighteenth century Fife landowners and Industrial Development was close; of course, families like the Hendersons of Fordell, the Wemyss of Wemyss were concerned particularly with the development of their coal mines, but the problems of drainage, especially in the Leven area, brought the landowners into contact with the problems of water-powered developments and made them aware of the potentialities of their riparian properties. Great families whose star had waned such as Rothes and Leven and Melville were forced to exploit their revenues to keep their debts within bounds; smaller landowners such as Balfour of Balbirnie were keen to exploit their estates because their land revenues were insufficient. (3)

In the earlier part of the century much of the linen was inefficiently produced on a part-time basis in the country side. The landowner instigated agricultural developments, increased the size of farms by amalgamation and increased the productivity of farm labour. As the population of the landward areas declined that of the towns and villages grew, increasing the efficiency of full-time linen production and allowing more capitalistic control. At the same time as the agricultural/

1. St. Andrews University. Cheape of Rossie papers 5/89.
2. *ibid* 7/604.
3. B. Duckham The Scottish coal industry vol. I. p.117

TABLE 1

SCHEME OF THE

MANUFACTORY IN COMPAR

CHARGE

To 7000 spynel yarn at 24 Scots per spynel
 To 20 weavers (who at a sp. working in the day
 will work the 7000) reckoned at 7½ per sp.
 To winding the warp and weft at 1 Scots per
 sp. overhead
 To House Rents per annum
 To Tear and Wear of utensils per annum
 To Warping and washing the 7000 sp. p.a.
 To sowing for the 7000 sp. p.a.

Suppose other 7000 spynel wrought out of the
 House by towns weavers amounting to the same

To Bleaching 56000 yds of cloath made out of
 the above 14000 sp. reckoning 4 yds in the
 spynel at the common rate which is a mark
 per score

To ship freight, commission and other charges
 to London

Total Charge

8,400
 2,625
 350
 100
 40
 60
 20
 11,595
 11,595
 1,866

600
£25,656

By 56,000 yds well wrought white cloath reckoned
 at 10s per yard at London
 By 2,800 yds outcome cloath reckoned at 5 per
 cent outcome in bleaching at 10s

Profit which is about 14½ per cent

Note 1.

That all weavers who work in the house
 allow a third part of the price of
 working, for furnishing looms and other
 gear, which for 20 weavers as stated
 in the Charge amounts to

875

Note 2

That it is thought if the company keep
 a bleaching field for bleaching
 themselves they may save of the 1866
 stated in the charge

600 } 1,475

DISCHARGE

28,000
1,400
 29,400
 3,744

£25,656

These two articles makes 8½ per cent profit to the Company which
 in all makes about 20 per cent. Only there is to be deducted
 from the profit master of work and Clark's salaries and petty
 charges which will not exceed 2½ per cent.

agricultural improvements, developments in the iron industry (e.g. building of Carron Iron Works) led to a decline in nail making at Pathhead and girdle making about Culross,⁽¹⁾ and many Smiths became weavers. The indentures of the well known Hutchison family of Kirkcaldy illustrate the point.⁽²⁾

In the localised economy of the eighteenth century, the landowners depended on local weavers for their household supplies and the surviving accounts, such as those of the Rothes family, at Lealie in the first half of the century, suggest a close involvement by the family, especially the Countess, in every stage of production, and go some way to explain the landowners' understanding of the industry and desire to improve it. In 1731 there are accounts of buying lint "for my Lady's use"; women were paid to card tow and a lint wheel was repaired suggesting spinning in the house. As early as 1683 there is an account of yarn purchased by Lady Rothes and on the 15th May 1717 there is an account for "20 spinnell of yaren bought at Glasgow for my Lady Rothe". There are also a number of accounts for weaving including 30 ells Tweeling (1737), 30 yards Holland at 1/- per yard (1742), 72 yards sheeting (1744). In 1742 there is an account to "Janet Clunes bleaching napery, 46 ells Dornick, 12 ells table cloths, 36 ells cotton". Many of the accounts are made out to women - e.g. "Bought from the goodwife of Mildeans, 20 ells (1730) - suggesting that much of the work was done by women."⁽³⁾

This/

1. O.S.A. Dysart Vol XII p.507.
2. Kirkcaldy Public Library. Hutchison papers, miscellaneous titles and indentures.
3. Kirkcaldy Museum. Rothes papers. Agriculture etc. miscellaneous vouchers.

This knowledge of and investment in industry inspired the landowners to encourage the linen industry on the national level, one of the most notable examples of this encouragement being the British Linen Company. A basic problem of the industry was the lack of capital and the Company with a capital of £50,000 was able to make large purchases of flax, cutting out Dutch middlemen; agents were set up in Dunfermline and Kirkcaldy to give out yarn supplied by the Edinburgh staplery and contracts were made with Manufacturers in Kirkcaldy and Dunfermline, notably an order for 25,000 yards of check made to Provost Wylie in 1758. David Campbell employed as many as 90 independent weavers in Dunfermline in 1754. The company also opened warehouses in London (1747) Glasgow (1749) and Leith (1750). (1)

However, the Company's greatest success was probably in the encouragement of the production of Osnaburgs. A correspondent from Virginia wrote in the Scots Magazine in 1749 "I am glad to inform you that the coarse linen from the British Company at Edinburgh is extremely good, and if they fall not into the common mistake of debasing the quality they will in a little time have a demand for all they can make" (2)

The success of the encouragement of Osnaburg/

1. C.A. Malcolm. The British Linen Bank pp 42 to 60. The agencies of growth within the Scottish economy in the earlier part of the Eighteenth century have only been touched on briefly, for they are fully treated in the recent Thesis by Alistair J. Durie. The Scottish Linen Industry 1707-1775 with particular reference to the early history of the British Linen Co. Edinburgh PhD. 1973.
2. Scots Magazine Vol XI 1749 p.253.

Osnaburg production, especially in the County of Angus may have increased the price of yarn to the finer Fife producers, though it also increased the number of spinners. (1)

Growth in demand was undoubtedly an important stimulus to the industry. Large quantities of Scottish yarn ~~were~~ sent to Manchester for their striped and chequered goods. (2) It was only when Lancashire turned to plain cotton goods, with the development of power spinning, and Kirkcaldy had improved the preparation of its yarns, that Fife goods were able to compete with Manchester. The Kirkcaldy trade again declined, when Manchester began producing these cloths in cotton. The century saw growing markets for cloth especially in the West Indies and America. The main beneficiaries were the producers of coarse Osnaburg used for slaves' clothing, though Kirkcaldy Checks were used for sailors' shirting. At home, a growing population and rising standards of living increased the demand for Kirkcaldy's Ticks for mattresses and pillows. Cavallo has also pointed to the great stocks of table linen kept by the magnates in Eighteenth century Britain. (3) However, throughout the century Damask, which was to become Dunfermline's staple product, only in the Nineteenth century, remained a luxury product, imported at 5/- to 6/- per yard for 2 to 2½ yard wide cloth; the/

1. Ibid vol XV 1753 p. 606. Vol XXV 1763 p.651.
2. Report from the Committee of the House of Commons relating to Chequered and Striped Linen (1751) p.294.
3. A.S. Cavallo. To set a Smart Board, Fashion as the decisive factor in the Development of the Scottish Linen Damask Industry p.53.

the Scottish product remained much inferior to the foreign. (1) Yet, as the century continued there was an absolute decline in the Dutch Linen and finishing trades and Scottish and Irish goods began to compete in quantity as well as price. (2)

The decline of the Dutch exportation to Britain was largely because of the British tariff policy of the Eighteenth century, aimed at increasing revenue to pay for the century's expensive wars. Before 1707 Scottish ^{Exports} Linen had been ^{restricted in} ~~imported~~ the English market by heavy duties. Thereafter heavy duties were placed on foreign Linens coming into Britain, a policy which hit coarser imports especially hard and did much to stimulate the Scottish and Irish industries. Thus by 1739 a London merchant could write "The great progress the manufacture of fine linen in Ireland hath made within these few years and more lately that of Scotland hath much lessened the demand for low priced Flanders and Hollands Linen." (3) Harte in his essay on the English linen trade goes as far as to suggest that protectionist policy was the key to the growth of the home linen industry.

If the Scottish Linen trade was to replace foreign produce at home and in third markets then the linen industry must be given special encouragement. Thus the Scots Magazine echoed the national sentiment in 1742 in calling for bounties for Scottish goods exported as/

1. BPP 1773 Reports Vol.III. Report of the Committee in the present state of the Linen Trade p.15.
2. C. Wilson. Anglo Dutch commerce and finance in the Eighteenth century pp 19 and 57.
3. N.B. Harte, Protection and the English Linen Trade, in N.B. Harte and K.G. Ponting Textile History and Economic History p.95.

as well as the exclusion of foreign linens which competed with the nascent Scottish products. ⁽¹⁾ In that year a bounty was placed on coarse linen, which greatly encouraged its output, production slumping, when the bounty was removed in 1754, only to be increased in 1756, extended to Checks and Stripes in 1770 and finally removed altogether in 1832. The case for the official protection of and subsidies for the linen trade was put by the Guardian of the Linen Manufacturers' interests at law, the Convention of the Royal Burghs. It was this body which, in the early part of the century sought drawbacks on exports, coupled with bounties and latterly encouraged the free importation of raw materials, duties or prohibition on foreign manufactured goods and further bounties. Its method was by petition and the employment of agents in London. ⁽²⁾ The Convention spent in 1755 £449.9.10 on commissioners' expenses in London "anent the Linen Bounty". 1756 £969.16.10 on commissioners' expenses in London in soliciting renewal of the bounty. 1770 £2192 on commissioners' expenses in London on Acts for flax fund and continued bounties. 1770 £1005 on commissioners' expenses in London on Duties on Foreign linens. It also spent £450 in 1779, 1792 and 1807 on Kirkcaldy harbour. The total expenditure by the Convention on aiding the Linen industry amounted to just over eleven thousand pounds between 1708 and 1807. ⁽³⁾

The/

1. Scot. Magazine Vol IV 1742 p.127.
2. T. Pagan. The Convention of the Royal Burghs of Scotland p.239.
3. General Report. Municipal Incorporations in Scotland, 1835.
Appendix class III p.15.

The most important government measure was probably the freeing of the industry from the control of the incorporations. As early as 1600 ex-soldiers and sailors could exercise the trade of weaving, without belonging to a craft. Thus the weaving craft grew to fulfil an important friendly function without controlling the trade and the anomaly arises of an incorporation of weavers being founded in 1664 by Ramsay the baron baillie of Abbotshall in the Linktown outside the boundry of the royal burgh of Kirkcaldy. (1) The weaving trade grew freely in the suburbs of Kirkcaldy whilst other trades languished in the burgh. However, it was the Act of 24th Geo.II C31 which definitively freed the trade declaring that every ... "maker of heckles, spinning wheels, weaving looms, and weaving reeds and also every weaver or manufacturer of linen, flaxen or hempen cloth, or every dresser of flax or hemp shall and may, and is hereby authorised to exercise the said trades within any city, town, corporation, burgh or place in Scotland, without any let or hindrance from any person or persons whatever, and without being chargeable or charged with any entry money or other duty whatsoever, for in respect of their following such trade or business". (2) The trade could thus grow freely without craft control - however, in the long run the lack of craft control prevented the weavers from controlling their numbers in their Nineteenth century decline. It was only in obscurantist towns such as Cupar and St. Andrews that the crafts attempted to maintain control over/

1. J.T. Davidson. The Linktown of Abbotshall pp 43-47.

2. General Report, Municipal Incorporations in Scotland 1835. p.82.

over all weavers but the Board of Trustees strongly defended the weavers' appeal to the Law. When two Cupar weavers were fined by the trade for not entering their apprentices to the Corporation the Secretary wrote "I confess I never before heard of an attempt to compel a weaver to enter his apprentices freemen with the corporation." (1) And in 1795 the Secretary wrote to the Deacon of the Weavers in Cupar and a group of unfreemen that there was no need to join the incorporation. (2)

But if the corporation spirit tended to stifle economic growth in the Royal Burghs there is evidence that the burghs themselves encouraged the linen industry by establishing markets and reducing local tolls. In 1718 the Kirkcaldy town council decided that "the manufacture Tykeing and Linen being a common advantage" the tax on bleaching should be removed. (3) In 1731, seeing the advantage of a linen market they appointed one to be held on the first Wednesday of July "and to be custom free for three years. (4) In the same year they petitioned the Board of Trustees for the establishment of a huckler in the town. (5) In 1740 "for the encouragement of the Manufacturers, ordain that yarn be custom free in all time coming." (6) And in 1751 a market was established on the second Wednesday in April for/

1. SR0 BOT Letters NG 1/3/14. 23/4/1784.
2. ibid. NG 1/3/17 30/7/1796.
3. L. Macbean. Kirkcaldy Burgh Records p. 239.
4. ibid. p. 263.
5. ibid p.264.
6. ibid. p. 265.

for the sale of Lintseed. (1) The town, however, failed to build a dyehouse as it intended and the yarn sorters appointed in the 1740s to improve the selection of yarns for the poorer weavers were discontinued in the 50s. Nevertheless as the century progressed the scale of manufacture in the town began to grow and Checks, Ticks, Stripes and to a lesser extent napkins and coarse goods became firmly established in the town and capitalists began to emerge ready to exploit the opportunities at the end of the century. Thus John Fergus who was established in the town by the 1750s was described by Loch as having 40 Tick and Check looms and a large bleachfield. (2)

The Damask trade is popularly believed to have been introduced to Dunfermline by James Blake who learnt the art by crawling under a loom in feigned idiocy at Drumhaugh, Edinburgh in 1715 and started to weave in the town at the age of 28 in 1718. A fine Jacobite napkin of (1719) and the flag of the Incorporation (1734) have been attributed to him. He died at the age of 80 in 1770 "respected and regretted by the haill burgh." (3) A description of the town in 1723 says "In the burgh are a great many weavers constantly employed in working Damask and Diaper, Tyckings and Bongall" (4) However/

1. Ibid p.276.

2. Loch op cit. Vol II p.41.

3. E. Henderson, *Annals of Dunfermline* pp 401 and 428. Industrial espionage was common in the eighteenth century, as was manufacturers' desire to keep their skills a secret. Drumhaugh, where the finest linen was made by descendants of continental weavers brought over by the ~~British~~ ^{Scots}, would have been the obvious place to discover the art of Damask weaving and there is no doubt that Blake was a fine weaver.

4. quoted in Fernie, *History of Dunfermline* p.176.

However, the Damask trade remained small and the patterns crude, yet in Dunfermline too, efforts were made to improve the trade. In 1725 the town resolved to enforce the laws against all frauds in the trade such as bad weaving, using ill/sorted yarn and bleaching with lime. (1) and in 1731 the town and the weavers acted together in securing a grant of £200 from the Board of Trustees for a bleachfield and put the job in hand with determination "The council appointed several of their members to oversee the building of four canals in the Bleachfield with stones on each syde and bottom and that the same be fallen about as soon as may be." However, Dunfermline lacked sufficient or soft enough water, and the field decayed, and goods were soon being sent as far as Glorat to be bleached as well as Maryburgh and Keirfield. (2)

A more successful venture was the calender which the Incorporation represented to the council that they had built in 1735. (3) At a meeting of the incorporation in 1762 it was resolved to put the calender with the hot and cold cylinder and cylinder house to roup and the building was thereafter leased or taken in hand by the incorporation till sold for £400 in 1837. (4) It can be seen that in spite of the freedom of the trade the Weavers Incorporation could play an important part in fostering the trade. The books of a number of Flie societies have survived. Of the smaller, the Kilrenny weavers set up a fund with 35 subscribers in 1643 and their minute book from 1772 shows their main/

1. Henderson. op cit. pp.413 and 414.
2. ibid p.473
3. ibid p.430
4. D. Thomson, The Weavers Craft p.239.

main functions, the payments to poor members, the collection of seat rents, the purchase of oatmeal on a cooperative basis and the hiring of the Martcloth at funerals. (1)

An important Society was that of the Linktown weavers set up in 1664, dissolved in 1741 and reconstituted in 1748. Entry was fixed at 4 Scots pounds for free prentices and 13/4d for freemens' sons. (2)

The occasion for entry was obviously one for merrymaking for in 1768 when the fees were written in Sterling, freemens' sons were to pay 1/-, half a gallon of ale, 4d to the Officer and serve the trade as an officer for a year, sons-in-law had to pay 5/- and "strangers who are weavers" 10/- plus a gallon of ale and the 4d. Some 55 names are included on the list of subscribers, amongst them John Fergus, the Heggies, Pratts, Williamsons, a Dougall and a Nairn, families which were to grow in importance in the next century. (3)

From 1777 to 1800 membership varied from 38 to 48 and if Loch's figure of 240 weavers in Kirkcaldy and Abbotshall is correct (4), then this would be a majority of the master weavers and small manufacturers. However, the numbers did not grow equally with the growth in trade and the Society declined in importance as non-weavers were allowed in. So too in Dunfermline, in 1799 there were complaints of allowing in a man "who is not an actual tradesman" (5). The timing of Society meetings also indicate the weavers' decline. In the Linktown the meeting of 1778 was/

1. Scots Magazine, New Series Vol XVII No. 5 August 1932. p.365
2. Kirkcaldy Museum. Linktown Weavers Book 15/10/1748.
3. Ibid 22/10/1768.
4. Loch op cit. Vol II p.40.
5. Dunfermline Public Library. Weavers Book 21/9/1799.

was held at 2 p.m., one in 1824 at 7 p.m. and in 1838 at 8 p.m. (1)

An important function of the crafts was the maintenance of the corporate spirit. As early as 1710 the Linktown weavers built a loft in Abbotshall Church for their members and in 1788, when the Church was rebuilt, the Weavers built a new loft, borrowing from the Gallatown Friendly Society and from John Fergus and Son. (2) Membership entitled the freeman and his children to a seat in the loft though it seems the latter did not appreciate the dignity; in 1781 the directors were ordered "to exert themselves in keeping order in the loft by doing what is in their power to keep the young boys decent (sic)" (3) The members also attended the burials of fellow members and their families, though again there is a falling off with fines for non-attendance from 1778. (4)

The Societies also provided relief for their members, though only on a limited scale. In 1796 the Linktown Society decided on weekly benefits and in 1803 a standardised benefit of 2/- per week in old age and sickness was to be given. £1.15s. was given for funerals and this was increased in 1816 and again in 1834 and 1839. In Dunfermline small benefits in money and kind were made on a monthly basis; thus in 1801 there was paid to "Robert Erskine fifteen shillings Sterling, Margaret Anderson/

1. Linktown Weavers Books. 22/10/1778; 21/10/1824; 15/2/1838.
2. Ibid 25/5/1788.
3. Ibid 26/10/1781.
4. Ibid 12/1/1778.

Anderson a pair of shoes and to pay for making a suit of clothes to each of Thomas Hardies' two boys. (1) There is every indication that the Societies were becoming little more than friendly Societies and funeral clubs. This view is heightened by the fact that the age of entry to the Linktown Society was reduced from 45 to 35 in 1793 to 30 in 1807 and 25 in 1816. (2) Further by the 1820s the operative weavers in Dunfermline had formed their own Society.

But the Societies did benefit the trade generally. In the distress years of the 1780s The Linktown Society bought meal at Edinburgh and raised subscriptions for selling it at below cost price; however, the Society gave up the trade when they were left with much on their hands as prices fell. The Dunfermline incorporation was more successful and engaged on various schemes for the provision of meal. As late as 1826, it bought 500 quarters of oats from Rotterdam for £1144 and sold it as oatmeal at 1/9d per peck - a penny below the general town price, incurring a loss of £198. (3)

The Societies also aided the quality of production by the provision of Weavers' reeds and the encouragement of reedmakers. In 1743 Charles Roy reedmaker was given the freedom of the trade, (4) and the incorporation continued to cooperate with the Board of Trustees in encouraging reedmakers. In the Links a small beginning was made in 1779/

1. Dunfermline Weavers Book 29/9/1801.
2. Linktown Weavers Books 22/10/1793; 23/1/1807; 25/11/1816.
3. Dunfermline Weavers Book. 13/10/1826; 2/12/1826; 27/10/1827.
4. Thomson op cit. p.307.

1779 with the purchase of 46 reeds, to be hired out, this number was quickly augmented from 345 in 1789 to 633 in 1799 to over 1000 in 1820. In 1803 the Society bought up 140 reeds at 1/8d each at a roup in Pathhead. As others began hiring out reeds the Society was forced to compete with them. (1) As weavers wages began to decline in the Nineteenth century the increase in reed hiring provided a steady income for the Society's benefits and occasional dividends till, with the decline of handloom weaving the Linktown Weavers Incorporation was dissolved in 1867. In both the provision of meal and in the hiring of reeds the cooperative spirit of the incorporations provided a lead for the working class provision societies and cooperative bodies as the majority of the weavers declined in status and the minority who had formed the main element of the societies, in the Eighteenth century, moved into the capitalist manufacturing class. Thus the enthusiasm engendered by the landowners at the beginning of the century passed down through society to push the industry forward from its small beginnings.

1. Linktown Weavers Books. 1/1/1779; 2/9/1783; 22/10/1789; 22/10/1799; 3/10/1803; 17/2/1820.

CHAPTER 2

Fife and the Board of Trustees in its later years

To see how the Linen industry developed in Fife in the later part of the Eighteenth century use will be made of the records of the Board of Trustees, which was the focus for the development of the linen trade. The Board was set up by Royal Patent in 1727 (13 George I C 30), under the full title "His Majesty's Patent for improving Fisheries and Manufactures in Scotland". The Board's aim was to improve both the quality and quantity of Scottish linen. Faced with small producers using poor equipment to manufacture and finish low quality goods, the Board used its funds, as best it could, to provide the instruments of production where they were needed and to disseminate their intelligent use as widely as possible.

Premiums were to be provided for the growing of flax, and foreign flax raisers brought over to spread their improved methods; better heckles, reeds and spinning wheels were given out and teachers provided to instruct in and encourage their use. Grants were to be given towards bleachfields and flaxmills and premiums awarded for designs and inventions, to encourage their adoption. The whole scheme was to be regulated by a body of official stamp masters, whose job it was to give the Board's seal of approval to all yarn and cloth made according to its rigorous standards.

To the extent that the Board of Trustees gave least assistance to developments which took place without its encouragement or/

or to parts of the industry which became quickly self-supporting, the greater the time and money devoted to a project, the more it seems a measure of its failure. Thus in spite of continued efforts, Scotland could never become self-supporting in the production of flax nor could she compete successfully with the finest products of foreign manufacture during the active influence of the Board. Though money may seem, with hindsight, to have been misspent, especially in relation to the Highlands, where the economic gains could only be very long term and where action was inspired by more fundamental social criteria, the Trustees were never careless with the funds at their disposal. The public spirited members of the Board kept a close control over these limited funds, preparing triennial programmes of investment and reporting annually to the Sovereign. It is, therefore, more useful to judge the Board of Trustees, not in terms of the success or failure of individual projects, but to study its activities as the barometer of change within the Linen Industry. Whether changes were initiated by the Board, were forced upon it, or merely came to its notice, the Trustees were to a lesser or greater degree involved with every facet of production and their records tell us much about the developments within the industry.

If the Scottish linen industry was to be successful, it must have a reliable source of suitable raw material and in the mercantilist climate of the early Eighteenth century it was disturbing to those in authority that the country should be dependent on foreign producers. Mr. Tod of the British Linen Company reported in 1751 that little flax was/

was being grown in Scotland.⁽¹⁾ and some years earlier Lindsay had written of Scotland's lack of knowledge in the treatment of flax.⁽²⁾ Between these years the 'Scots Magazine,' though overestimating the possible yields per acre, had rightly asserted, that Britain could grow better flax than was being grown elsewhere.⁽³⁾ Policy had to be aimed at improving the quality of flax treatment and to increase both the acreage and output per acre. Briefly, the action taken was this. From 1728 to 1748 a premium of 15/- for each Scotch acre sown was given but this was abandoned in the latter year as it threatened to soak up too much of the Board's funds without greatly increasing the output of flax. There was, too, much sowing of poor ground with bad seed - just to claim the premium. For the next twenty years the emphasis was on flax treatment but the general state of Scottish agriculture was not then conducive to the improvements needed. From 1744 to 1751 use was made of Dutch "Lintboers to teach and encourage flax growing". "But the scheme proving abortive, and the money was thrown away because experience proved that in Scotland no widely extended tracts of country were to be found lying contiguous and fit for the cultivation of flax or indeed any kind of culture, so that the Trustees found it proper to hold forth their premiums upon a different scale."⁽⁴⁾ Thus from 1748 to 1758 the "breeding of skilful hands" and the provision of flax mills was encouraged/

1. Report from the committee relating to chequered and striped linens 1751 p. 294.
2. P. Lindsay. The Interest of Scotland considered p.148.
3. Scots Magazine vol IV 1742 p.231.
4. S.R.O. B.O.T. NG 1/60/18 Notes concerning culture of flax in Scotland 1/2/1784.

encouraged. Thereafter the Board concentrated on giving premiums per stone of dressed flax. From 1759 to 1764 the premiums were applied in Perth, Forfar and Fife and from 1764 to 1768 the premiums were changed to Dumbarton, Renfrew and Ayr and increased, because of the inferiority of flax grown there. Although more flax continued to be grown in the East, the writer of the "Notes concerning the culture of flax in Scotland" felt that "Upon the whole the trustees find the premiums have promoted and extended the culture of flax." (1) Thereafter, the policy of increasing output per acre continued.

Premiums were only given where the produce was greater than 25 stones per acre and only on plots of one acre or more (Half an acre being allowed in the North, South-West and Borders) (2)

In spite of the Boards efforts, the basic problems remained. As early as 1732 the Board felt that farmers were slow to learn how to water and dress their flax. (3) Lord Kames, the famous mid-eighteenth century member of the Board and others saw the vicious circle that existed. The Board's premiums for flax growing had been unsuccessful, because there was not sufficient capital to build flax mills (4) and there was a lack of marketing arrangements to take the flax off the farmers' hands. (5) If farmers would not raise flax without Dutch type/

1. Ibid.

2. S.R.O. B.O.T. NG 1/60/19. Different modes of Premiums 1772-1783.

3. S.R.O. B.O.T. States of the Annual Progress of the Linen Manufacture 1732-3 p.24.

4. Kames. Progress of Flax Husbandry in Scotland Scots Magazine vol. XXVIII 1766 p.17.

5. Scots Magazine vol. XXXIV 1772 p.124.

type lintboors to buy up the product, then lintboors could not function, if too little flax were raised. (1) Further, in a county where flax was not a main crop, farmers could not afford the necessary equipment for treating it, their workmen would not be skilled in flax treatment and flax might interfere with other crops. (2) The Board made several attempts to improve on the traditional methods of flax retting. In 1811 Sir John Sinclair of Ulbster reported to the Board on steam retting and in 1816, following trials at Kirkland Works, Leven, by John Drummond on his patent, the Board felt it had wasted time and energy on experiments to do away with retting and in the same year it asked Mr. Gavin Inglis of Strathendry about retting in running water. (3) But there was no ready substitute for the complicated and loathesome job of sound retting in lint holes. A Mr. Aiton, who was commissioned by the Board, examined the culture of flax in Scotland and Holland in the 1830s and found the Scots still steeping their flax in running water which was often hard. The Dutch, with a canal between each field had a unique advantage in retting. They were also more skilled at judging a process where, if the flax was taken out too soon, the bark could not be separated from the pith or where "a single day or even a few hours too long in steep may render the bark soft, weak and brittle." (4)

From the time of Hope of Rankellours' flaxmill near Cupar, the/

1. Ibid p.177.

2. Ibid. pp.126.

3. S.R.O. B.O.T. NG 1/1/32; 27/11/1811; NG 1/1/33, 6/3/1816; NG.1/3/21
20/10/1815 22/11/1815.

4. S.R.O. B.O.T. NG 1/60/54

the Board encouraged the building of flaxmills for the scutching of flax. But as long as capital remained scarce and flax growing was conducted on a small scale mills would remain small local ventures. In 1771 there were 220 Lint Mills in Scotland in 1785, 400 and in 1802 408.⁽¹⁾ However, a survey carried out by the Stampmasters revealed that there were only eleven mills in Fife. There were three on the River Leven, including the largest, Leslie Lint Mill, which stored all its flax indoors and employed good hands; there were a further four in the area between Pittenweem and Crail, two in the St. Andrews area and one in the parish of Falkland, indicating that the Markinch Leslie area and the East Neuk of Fife were important flax growing areas at the time. The mills employed between six and nine men, usually on a yearly basis and the general character of the Fife Mills and hands was thought to be good. The mills were generally rented at £10 to £25 per annum and improvers such as Sir John Anstruther and the Earl of Balcarres were amongst the proprietors.⁽²⁾ The survey does not mention the Board's complaint that workers' wages were often paid in flax, leading to embezzlement and wastages.⁽³⁾ Only two of the mills listed were insured, the Edenshead Mill by the Sun Fire Office, London, and Balcomrie Mill by the Friendly Insurance Office, Edinburgh, again indicating the small scale of these properties, which were/

1. S.R.O. B.O.T. NG 1/3/14, 10/4/1786. NG 1/3/19, 30/11/1802.
2. S.R.D. B.O.T. NG 1/19/1 Reports by Stampmasters upon the Lint Mills in their districts. 1772.
3. S.R.D. B.O.T. NG 1/1/20, 24/11/1773.

were very liable to fire. All the mills were waterpowered, sometimes by very small streams, there being only sufficient water at Balcormie for five months per year.⁽¹⁾ The Old Statistical Account for the parish of Beath mentions a horse driven mill but this is not typical.⁽²⁾

The number of mills in Wife increased, especially at the outset of the Revolution in France. Of the 27 grants made by the Board between 1779 and 1823, 10 were made between 1788 and 1791 in line with the general boom of the period, thus the O.S.A. could boast 7 mills in Markinch parish,⁽³⁾ whilst the fact that grants were made for the repair or rebuilding of mills at Balcormie, Falkland and Balbirnie and that mills were converted to other uses suggests a decline during the Napoleonic period as farmers profited from the high price of corn, despite the scarcity and high price of imported flax.⁽⁴⁾ The use of lint mills, however continued, £45 being granted to David Inrie for machinery and a shed at Haughmill both upon a large scale in 1821. A grant was also given to Alexander Thomson for repairs at the Milton of Balgonie Lint Mill. Both these sites were those of flax spinning mills and the fact that flax was grown on Prinlaws and Milldeans farms,⁽⁵⁾ that a flax scutching and/

1. S.R.O. B.O.T. NG 1/19/1
2. O.S.A. Beath Vol. II p.235.
3. O.S.A. Markinch vol. XII p.555.
4. S.R.O. B.O.T. NG 1/1/33. 5/7/1815.
5. Edinburgh Advertiser 29/1/1796.

and barley mill was to be sold along with the Prinlaws Spinning Mill in 1805⁽¹⁾ and that a grant was given for Tarvit Mill in 1811 show that the early spinning mills depended to some extent on home-grown flax and that the concentration of flax growing in the parishes bordering the River Leven was to some extent owing to the existence of the Spinning Mills. The accounts of Robert Kirk of Rothes Spinning Mills for 1835 indicates that he was using some locally grown flax⁽²⁾ and the 'Fife Herald' records a fire at Arnot Flax Mill in 1845 (in which some flax was destroyed).⁽³⁾

If flax was to be a successful crop then good quality seed had to be grown, especially where there was a difference between flax which had been grown for seed and that grown for the fibre. Where seed was removed after retting it could be waterlogged and useless for sowing but it was always a temptation for unscrupulous dealers to sell seed intended for crushing for linseed oil and cattle cake at the higher price obtained for sowing seed. The temptation was increased by farmers' preference for foreign sowing Lintseed, Dutch seed for the largest and finest crops, American for cold, wet soils and Riga seed/

1. Ibid 27/9/1805.
2. S.R.O. CS 318/17/177 Sequestration of Robert Kirk. Dec. 1835. At each of his farms, Kinglassie, Macedon and Spittal, Kirk had Lint in stacks, 8 stacks for instance at Spittal, one of which had been watered. His accounts for August and September show him buying small quantities of Scotch flax and paying for the preparation of flax. Thus there is an entry for 3rd September. Paid 6 people at Lint holes 2/- each, and September 25th. "Paid Lint pullers at Spittle (sic) £8. The accounts also indicate that there were still Lint Mills operating to scutch the flax for on March 25th he paid "John Primrose for scutching flax per account £33. 4. 7½d" and on April 29th he "paid John Drysdale Balbirnie for scutching flax £8.13. 9½d.
3. Fife Herald 25/11/1845.

seed for large but coarse crops. (1) In the late Eighteenth century 90% of the seed imported directly to Fife was from Holland and 10% from Russia. American seed would have come via Greenock. Till 1794 half the direct import to Fife was through the Anstruther ports the rest via Kirkcaldy, though seed would also come in from Dundee and Leith importers who advertised in Fife. (2) The Board, therefore, insured the inspection of imported seed and prosecuted improper dealing. Prizes were also given for the greatest quantities of flax seed produced. (3) The Board encouraged the setting up of Lintseed markets and these were held in many places in Fife in the spring. A sign of the decline of local markets and of flax growing in Fife was the disappearance of the Lintseed markets. By the Nineteenth century the merchants who had sold the seed at the annual markets were now advertising the arrival of new seed, in the local press, which was for sale at their warehouses. Thus the 'Fife Herald' of the 25th March 1824 advertised seed bought by John Braid, Merchant, St. Andrews from Van Egmont of Rotterdam and in April 1825 George Elder, Kirkcaldy, advertised 50 barrells new Riga seed to be sold by Public Roup. (4) By 1836 the 'Fife Herald' could report that the Cupar Lintseed Market was given over to the sale of fat cattle and grazing stock. (5)

The decline of home flax growing at the beginning of the Nineteenth century is evident on all sides. Study of the returns of the gainers/

1. Rev. J. Thomson. General view of the Agriculture of Fife p.213.
2. S.R.O. B.O.T. NG 1/60/29 Flax seed imports to Scotland 1789-1798.
3. S.R.O. B.O.T. NG 1/60/19. Different modes of premiums 1772-1783.
4. Fife Herald 25/3/1824. 7/4/1825.
5. Ibid 20/4/1836.

gainers of the Boards' premiums and reference to the O.S.A. suggest that flax was regularly grown in all but about 10 of the 60-odd parishes in Fife at the end of the Eighteenth and beginning of the Nineteenth centuries and possibly in some of these 10 as well, for in some cases the Minister does not mention crops at all, or a parish might be like Kinghorn where the "quantity of flax sown is so inconsiderable as not to be worth mentioning;"⁽¹⁾ or like Leuchars where the flax was raised but not in such quantities as to compete for the premiums,⁽²⁾ "there is seldom more sown than what is necessary for the use of the families or in order to induce labourers to engage for the harvest". However, it seems that flax was not widely grown in the Northern parishes of Newburgh, Dunbog, Moonzie, Logie and Forgan, and only scatteredly in the parishes South and West of Auchterderran. Thomson believed that this was due to the unsuitability of the land and the lack of steeping facilities, "particularly on the North side these considerations have had their effect and little flax is produced."⁽³⁾ Further, it was not common to grow much flax where wheat was a common crop.⁽⁴⁾ However, as Thomson said "In the middle district of Fife where the ground is much elevated and the soil cold and moist bottomed, flax is found to thrive extremely well and to be of a fine quality".⁽⁵⁾ This view is borne out by the statistics. In 1798 although the top parish was Ceres with 12 gainers this was followed by Kinglassie, Leslie, and Markinch with 9, 8 and 6 gainers and 5 each in the/

1. O.S.A. Kinghorn XII p.240.

2. O.S.A. Leuchars XVIII p.588.

3. Thomson op cit. p.213.

4. Beatson. General view of the Agriculture of Fife p.12.

5. Thomson. op cit. p.210.

the East Neuk parishes of Kilconquhar, St. Monance and Carnbee - where 4 of the 11 Mills of 1772 were sited. ⁽¹⁾ In 1820 the main gainers were Kettle, Kinglassie, Lealie, Markinch and Wemyss ⁽²⁾ and in 1827 the same parishes apart from Wemyss were top again. ⁽³⁾ In 1800 Thomson could conclude that "The liberal encouragement given by the Board of Trustees for introducing and extending the culture of flax in Scotland, has been very successful in Fife, there being few counties where a greater quantity is raised in proportion to its size, and where the management is, in general, now better understood. From the best information that can be got, it is probable that about 1500 acres of flax may be annually raised in this county". ⁽⁴⁾ By 1833 6 sowers on 77 acres claimed a premium on 2252 stones of flax. ⁽⁵⁾

Though it was not the general practice of Fife farmers, some grew crops of from 20 to 36 acres at the end of the eighteenth century and larger crops are found in a few later instances, ⁽⁶⁾ and a good profit could be made. Writing in the O.S.A. the Minister of Ferryport on Craig reported "The flax in particular turns out to be a very lucrative crop." ⁽⁷⁾ But flax was not an easy crop to grow as Thomson warned, "It is a crop which requires a great deal of attention, labour and expense; and consequently must occasion considerable loss in case of failure." ⁽⁸⁾ And Sir/

1. Edinburgh Advertiser 5/3/1799.
2. S.R.O. B.O.T. NG 1/42/8. Premiums for flax growing vol I. 1820.
3. BPP 1829 XXI p.284. Premiums paid in 1827.
4. Thomson op cit pp. 199/200
5. S.R.O. B.O.T. NG 1/42/91 Premiums for flax growing 1833.
6. S.R.O. B.O.T. NG 1/1/28 11/12/1793.
7. O.S.A. Ferryport on Craig Vol VIII p459.
8. J. Thomson. General View of the Agriculture of Fife p.213.

Sir John Sinolair, though a great advocate of flax growing had to admit that, "The attention which must be paid to various minute processes are utterly incompatible with the more important concerns of a large farm."⁽¹⁾ Not only was flax an unsuitable crop for practical reasons, then, but it was also subject to extreme variations in output. In 1804 the 'Farmers Magazine' could report that in Fife, the produce per acre was at least double that of the 1803 crop. But in 1805 the crop was said to have "suffered more for want of rain than any other and will be short and unequal."⁽²⁾ In 1831 the 'Fife Herald' called for an increase in flax growing in Fife in view of the uncertainty of foreign supplies and drew attention to Mr. Henderson of Newton (Wemyss Parish) who had that year sown 40 acres of flax and concluded "This excellent agriculturist sows a considerable quantity every year, and we believe that this year in particular the speculation will be a good one."⁽³⁾ They were correct to use the word speculation; here is Henderson's output from 1820 to 1822:-

1820	1273	stones of flax from	45	acres
1821	1049	" " "	62½	acres
1822	924	" " "	78.6/8	acres

In both 1821 and 1822 his crop was cut by drought in early summer.⁽⁴⁾

The/

1. Sinolair's Analysis, p.330.
2. Farmers Magazine 1804 p.485 and 1805 p.375.
3. Fife Herald 7/7/1831.
4. S.R.O. B.O.T. NG 1/42/8.

The culture of flax was not made safer by the continued injudicious farming methods. For all the agricultural developments and the encouragement given to flax growing, the Minister of Markinch, one of the principal flax-growing parishes wrote "The culture of flax still continues to be conducted in a very injudicious and unprofitable manner."⁽¹⁾ To this was added the fact that much flax was grown as a perquisite for farm workers and the treatment of flax after pulling remained outmoded. In fact so general were the malpractices, that when the steeping of flax in lochs and rivers was prohibited, five farmers believed that this was "tantamount to prohibition on the culture of flax."⁽²⁾ There is little clear indication of landowner policy towards flax growing. Not being a new crop of the farming enlightenment it was of no special interest to farmers. The Rothes papers, for instance, say little about growing flax and go no further than the orders to the factor in 1752 to "notice the lint ground" and "to report the quantity of seed sown in each inclosure whether of corn flax or grass."⁽³⁾ Part of Auchmuty farm on the same estate was called the Lint park.⁽⁴⁾ Some flax may have been grown by the landowners to make the yarn given out to the customer weavers as part of/

1. O.S.A. Markinch Vol XII p.532. The practice of giving out flax seen to farm labourers as a perk without supplying manure insured that the crop would be inefficiently grown in small plots.
2. S.R.O. B.O.T. NG 1/1/31. 28/5/1805.
3. Kirkcaldy Museum, Rothes Papers. Agriculture 1752.
4. Ibid 1823.

of the diversions for the Ladies of the house. Thus the Earl of Leven wrote to his son, Lord Balgonie about 1800 that the factor said "Lady Balgonie's Lint is the best he has seen."⁽¹⁾ Neil Ballingall, the factor at Balbirnie was growing an above-average flax crop at Auchmuty in 1820,⁽²⁾ and amongst the articles left by Robert Beatson in his desk at Balgonie on quitting Lord Leven's service was a pamphlet on the culture of hemp.⁽³⁾

Tenants were generally bound to cultivate and improve the land and "not to take scourging crops; and he is restricted from following such methods of management as would injure the land and himself."⁽⁴⁾ Where a tack specifically mentions flax, cultivation was sometimes restricted to a specific amount eg. 10 pecks (enough for 1 acre) or for use of the farmer's family only.⁽⁵⁾ Thus the tack of Stenton from the Earl of Leven in 1802 prohibits scourging crops and stipulates a maximum of 30 pecks per year.⁽⁶⁾ In other cases a strict limit was placed on the amount grown in the last years of a tack; Only 6 pecks per year being allowed in the last three years on the Lease of Belfield in 1809.⁽⁷⁾ However, the overall opinion of landowners in Fife must remain in doubt because, though tacks exist for the Rothes and Leven and Melville estates, which covered the main flax growing areas, and Robert/

1. S.R.O. Leven & Melville papers GD 126/13/736.
2. S.R.O. B.O.T. NG 1/42/8.
3. S.R.O. Leven & Melville GD 26/5/716 Vol I 19/5/1803.
4. R. Beatson. General view of the Agriculture of Fife p.21.
5. Thomson General View of the Agriculture of Fife p.207.
6. S.R.O. Leven & Melville GD 26/5/716 Vol II.
7. S.R.O. Leven & Melville GD 26/5/217.

Robert Beatson of Piteadie encouraged flax growing in his "General View of the Agriculture of Fife," it is hardly surprising that the policy he illustrates there is found in the Leven and Rothes tacks, for as factor to the former estate and adviser to the latter, his signature appears on the tacks of the period. Whatever was the policy of the landowners there were other reasons why flax growing declined.

In 1808 the Board of Trustees attributed the decline in flax growing in 1804, 5 and 6 to the weather, to lease policy, to the government grant of 5/- per bushel on seed exported to Ireland, on the high price of labour and the high price of corn.⁽¹⁾ Fife was the most arable county of Scotland and the Statistical Account records the great increase in wheat growing in the county as land was inclosed and improved in the last half of the eighteenth century. With the danger of crop failure it needed a very low wheat price to encourage flax growing and though flax prices remained high in the war period, so too did corn. Enclosure, too, had more far reaching effects on farming. By increasing the size of farms, agricultural underemployment decreased as a small farm labour force became more efficient and others moved to the towns and villages. Although farmers gave flax in small quantities of a lippy or two (about $\frac{1}{4}$ of a peck) to attract casual labour, especially women, for weeding, hoeing and harvesting, the decline in agricultural population led to a labour shortage, not to mention the inefficiency of this type of cultivation. This contrasts greatly/

1. S.R.O. B.O.T. NG 1/1/32 3/2/1808.

greatly with Ireland where continued subdivision of holdings created surplus labour suitable for flax-growing operations. Further, the only increased size of holdings encouraged the trustees to give premiums for sowings of above an acre. Thus the widespread Fife feuars such as at Falkland or Strathmiglo could not benefit.⁽¹⁾ This policy also led to an underestimation of flax grown in the county but too few account books of feuars and small tenants survive to make any estimation of the quantities. The Jollies, brewers in Leslie and feuars of Prinlaws from the Earls of Rothes from 1745 certainly grew a little flax: in 1811 Patrick Jollie sowed 4 lippies of seed,⁽²⁾ and in 1831 his brother aided him at the Lint hole.⁽³⁾

For the manufacturer the most important considerations were quality and price. Especially after 1800, there was a change in Fife production towards coarser goods and a growing demand for Baltic flax which suited these products. The finer Fife flax became unsuited for commercial production but remained for household use. It was, too, more expensive, though again statistics are few. In 1802 Fife and Forfar flax cost 15/- per 22 stone against 14/5d for Dutch and 13/10d for Russian.⁽⁴⁾ (The point will be covered more specifically in dealing with imported flax). Finally the economic climate was against flax growing. Sir John Sinclair continued to encourage flax growing and wrote to Skene of/

1. S.R.O. B.O.T. NG 1/3/17 2/6/1795.
2. S.R.O. GD 1/516/1 14/3/1811. Account Book of a farm at Leslie.
3. S.R.O. GD 1/516/2 1831. Account Book of a farm at Leslie.
4. S.R.O. B.O.T. NG 1/3/19. 30/1/1802.

of Rubislaw in 1832 "The representations on this head ought to be very strong and energetic, as we have to contend with the absurd notions of political economists which are uniformly hostile to the success of agriculture, or in other words, the real and permanent interest of the country."⁽¹⁾

The threat to flax imports from the Baltic by the 1850s brought renewed interest in flax growing and a number of works popularised the crop. In 1846 John Warnes believed that lack of knowledge of the management of the fibre was the only real hindrance to the success of flax growing and pointed out that the well known Scottish agriculturist, George Hope of Fenton-Barns had grown flax profitably.⁽²⁾

However, the popularisers admitted that flax could not be a long-term success. Robert Brown of Glasgow wrote "flax is a remarkably laborious crop and is suited better for small farmers than large."⁽³⁾ Further attempts to find new processing techniques also failed, Sir Robert Kane, dismissing Clausen's attempt to produce a cotton-like fibre from flax.⁽⁴⁾ Yet in the short term, nowhere was there more interest in flax growing than in Fife and Brown could say of 1851 "The revival of the cultivation of flax in Fifeshire has this year obtained considerable attention from the agriculturists in this district"⁽⁵⁾

David Russell, the Markinch paper maker, bought and rebuilt Silverburn Works/

1. S.R.O. B.O.T. NG 1/60/54 5/12/1832.
2. J. Warnes On the cultivation of flax pp 270 and 274.
3. R. Brown Flax, its culture and preparation in Scotland, Ireland and Flanders p.34.
4. BPF 1852 LI Report of Sir Robert Kane, p.501.
5. Brown op. cit. p.16.

Works near Leven in 1854 and contracted with large numbers of farmers for the purchase of their crop and seed. (1) The greatest enthusiast was John Fergus M.P. of Prinlaws, who transferred £12,000 to his Redford Flax Factory Account in 1852. (2) This concern definitely encouraged flax growing for in 1854, 1,645 acres of flax were grown in Fife out of a Scottish total of 5,000 acres, rather more than Thomson had reckoned for 1800. (3) The scale of the works was also large. The site chosen had long been Charles Tennant's Orr Bridge Chemical Works (Thornton). Here a single-storey building 181 feet by 82 feet with flax steeps, seeding machinery and sutching mill driven by a twenty-five horsepower steam engine was said to be capable of preparing 1,500 tons of flax straw per annum. The Works also included 2 houses and 5 workmen's cottages. (4) The Factory Inspector, too, was worried by such large enterprises in country places not covered by the Factory Acts. (5) But the scheme was not a success and in June 1856 the "Fife Herald" concluded "The rettery at Redford is to be given up as a flax work, which looks as if these works could not pay upon the grand scale." (6) Low import prices and inadequate home supplies made the venture unprofitable.

In the 1880s there was another revival; and in 1886 the Fife/

1. C.D.M. Ketelbey Tullis Russell: 1809-1959 p.134
2. John Fergus & Co. Ledger 1850-1852 folio 481.
3. Warden p.440.
G. Houston Agricultural Statistics in Fife before 1866.
Agricultural History Review vol IX 1961 part 2 p.94.
4. Fife Herald 18/12/1856.
5. B.P.P. 1852-3 XI Factory Inspector's Report p.510.
6. Fife Herald 8/5/1856.

"Fife Free Press" reported that flax was to be grown in Fife. In August the paper reported a good crop at Haughmill.⁽¹⁾ John Fergus and Co. were again at the centre of the encouragement and for the years 1886 to 1889 they gave out seed to farmers. But again the scheme was dropped only to be taken up in the two world wars. Although flax could be grown in Fife the continuing agricultural changes in the county from the middle of the Eighteenth century, leading to less employment on the land and larger farms coupled with the continued subdivision of land in the main flax-growing countries, and the growing suitability of Baltic flax to Fife's requirements, facilitated by the development of a sophisticated market in Dundee, made flax a desirable crop for farmers, only when the fibre was virtually unobtainable from other sources.

If the era of the Board of Trustees sees the virtual disappearance of flax from the fields of Fife, it also sees a revolution in the bleaching processes but again the part played by the Trustees in this development is strongly questioned.

The bleaching trade in Eighteenth-century Scotland has been examined by the Clows in their study of the chemical industry, by Enid Gauldie and recently by Alastair Durie in his thesis on the Scottish Linen Industry in the Eighteenth Century. The Clows concluded that "the rapid progress achieved by Scottish Bleachers during the Eighteenth Century can be ascribed to the encouragement and/

1. Fife Free Press 21/8/1886.

and assistance given by the Board of Trustees."⁽¹⁾ Durie, looking at the linen industry, specifically, suggests that developments in chemistry encouraged by the Trustees were insignificant before the end of the century and also that the main developments were in the provision of capital. These principal developments in bleaching took place outside Fife for various reasons, including the unsuitability of the water and the fact that much cloth was sold unbleached. As the overall question has been dealt with, suffice it to say that, there were developments in chemistry, notably the use of oil of vitriol from Prestonspar after 1749, which helped to speed up the souring of the cloth. The Second Vitriol works in Scotland however were set up in Burntisland between 1780 and 1790, by one William Muir, and was later carried on by Alexander Piteairn and partners and after 1805 by Piteairn himself. The extent of the works can be judged, in that they paid one twenty-fourth of the total cost of the town.⁽²⁾ However, the works must soon have closed for the Minister of Burntisland commented "The vitriol works are long suspended and the premises converted into cottages for summer visitors."⁽³⁾

On the question of capital, of the £20,651:12:8d expended by the Board of Trustees between 1729 and 1772 (by which time most of the important/

1. A. & N.L. Clow The Chemical Revolution p.173.
2. Ibid p.144.
3. N.S.A. Vol 9 p.425.

important fields were fully operative) only £1,062:13:6d was spent in Fife, and £2,275 in Perthshire. Thus, although William Sandeman at Luncarty received grants totalling altogether £945 in this period, (1) his field was estimated to have cost over £8,000 by 1768. (2) In the era of the Board as a whole, many of the grants were purely nominal. Thus the last and largest grant given in Fife, £100 to W. & R. Russell at Balgonie Bleachfield was insignificant compared with the total cost of the machinery alone, totalling £1,911 in 1826. (3)

In spite of any developments, great problems remained throughout the century notably the provision of bleaching agents; the time-consuming nature of bleaching which restricted output by tying up capital in cloth at the field, the land-intensive nature of the industry. Much depended on the hazards of the weather and the seasonal restrictions, on the trade, which confined bleaching to two "fields", one in April, the other in June, each of which were advertised in the press, detailing the bleacher's charges and the points at which cloth could be deposited for dispatch to the fields. The significant break-through was the development of bleaching powder by Charles Tennant at St. Rollox in 1798, replacing the more volatile, difficult and dangerous to transport, gas and liquid bleaches. The powder greatly speeded up the process, freeing both land and capital for other uses and producing a better/

1. S.R.O. B.O.T. NG 1/42/1 Premiums for Bleaching and the fitting up of Bleachfields, 1729-1772.
2. S.R.O. B.O.T. NG 1/1/18. 22/1/1768.
3. S.R.O. B.O.T. NG 1/1/35. 4/2/1826.

Table 2

1827 Expenses William Russell and Company (William Russell and Michael Barker, Linen Manufacturers at Kirkcaldy and bleachers at Balgonie Bleachfield near Markinch.

All machinery new, the total expense of the machinery not being under (1) £1,911. All inspected by William Swan J.P. and the Minister

Equipment

8 yarn boilers - cast metal
 4 evaporating boilers for recovering ashes - cast metal
 1 Steam boiler "
 2 Steam still cases "
 2 Leadon stills
 2 Receivers of large Arbroath pavement stone - with agitator machinery, leadon pipes, Brass cook.
 Pressing rollers of cast metal and wood
 Cast metal pump with its machinery
 Large water wheel of cast metal and wood
 2 Large cranes with cast metal winches etc. for hoisting yarn out of boilers.
 3 Reels of Bleaching Liquor - application machines
 1 Large tub with wringers attached
 Furnace bars, dampers, grates of cast metal
 Pipes and water conductors of cast metal and lead
 Sluice machinery
 12 steeps of large Arbroath pavement stone - polished
 2 leadon pumps affixed to ditto
 3 Sunk cisterns for retaining bleaching liquid
 6 Wheel barrows - 8 shaking posts
 Reservoir with cast metal pipes for supplying boilers, steeps with wells
 Racks for steeps.

1. S.R.D. B.O.T. NG 1/60/67.

better finished product by reducing the cloth or yarns' exposure to the hazards of the weather.⁽¹⁾ About the same time winter bleaching began and the Trustees granted £50 to John Melville and Son of Dysart for having erected "at a great expense" an apparatus for winter yarn bleaching at Prinlaws.⁽²⁾

There are several reasons why bleaching was slow to develop in Fife, the most obvious being that many of the coarser products of North Fife were sold unbleached to merchants. This competitive, lightly-capitalised industry provided no incentive for capitalists to emerge. Thus, though the Trustees gave £225 to John Riddell and partners in 1727 for a four and a half acre field at Cupar it had to give £100 to the firm for a new field in 1741 and the Cupar bleachfield remained on a small scale.⁽³⁾ The other Fife field to receive a sizable grant was that at Dunfermline, which was given £200 in 1733 and a further £20 in 1734 for hiring a skilled person to teach the whitening of cloth with kelp.⁽⁴⁾ However, here again the Trustees' money achieved little, because the water was too hard for bleaching and Dunfermline was soon making use of the easily-accessible Perth bleachfields. This in itself was a handicap to the Fife industry, because the great fields at Stormont and Lumcarty associated with the Turnbulls and Sandemans with their wide-reaching collection system and regular/

1. S.H. Higgins, History of Bleaching p.94.
2. S.R.O. B.O.T. NG 1/1/30 17/12/1800.
3. S.R.O. B.O.T. NG 1/42/1 op cit.
4. ibid.

regular transport to Dunfermline and other towns provided a more efficient service than any that could be provided in Fife. Even at the end of the century the small Fife firms were charging as much as the great fields, though firms such as George Pierson at Balbirnie must have been quite large with collecting points in Edinburgh, Leith and at ten points in Fife from Burntisland to St. Andrews.⁽¹⁾

A further reason for the slow development in Fife was the general distrust of bleachers. This may have been particularly the case in Fife where the public fields were all small for in 1772, although there were only 9 fields in Forfar and six in Perth, there were 13 in Fife.⁽²⁾ Thus the O.S.A. says that in Largo almost every weaver and others have a bleaching ground,⁽³⁾ and such was the activity of individuals in Aberdour that the banks of the burn "in summer are covered with cloth and yarn"⁽⁴⁾ However, at Leven the public bleachfield with, sixteen to eighteen employees was said to be increasing "as the peoples' prejudices against public bleaching are daily wearing off."⁽⁵⁾ As long as the industry remained small, there could be little incentive to provide the large amounts of capital needed for a bleachfield and the industry would remain prey to the misuse of lime by unskilled hands. It is ironic that the revolution in the industry depended on the use of lime as converted into bleaching powder.

There/

1. Edinburgh Advertiser 20/3/1795.
2. Clow op. cit. p.180.
3. O.S.A. Largo Vol IV p.534.
4. Ibid Aberdour Vol. IV p.331.
5. Ibid Seconie Vol. V p.104.

There were examples of efficiency in Fife notably at Strathmiglo and Elie both of which were assisted by the Trustees. Writing about Strathmiglo Loch said, "There is a fine bleachfield here, well employed in bleaching gauzes, lawns, stripped muslins and many other fabrics to the amount of about 1,000 pieces, sent from Glasgow, Paisley and other parts, besides Silesias bought from Perth and Stirling." (1) Elie may have provided a spearhead for developments in Fife for the Board gave grants to Alexander Given for going to Manchester to perfect the manufacture of checks and in employing a "foreman bleacher of the check manufacture" from Manchester. (2)

The Scots Magazine in an article in 1763 was highly critical of the Scottish finishing industries with the exception of the Elie bleachfield and the Dyery at Kirkcaldy; at the former, the writer found the goods "finished the best ever I saw in Scotland" (3) and in 1770 the Board of Trustees was describing the Elie works as "this factory." (4) But Elie was too far from the centre of the Fife Linen trade, the development was to come from the Kirkcaldy area. If Kirkcaldy goods were to compete they had to be made of better-finished yarns. A growing Kirkcaldy trade would stimulate the finishing trades and better yarns would encourage capitalists to enter the Tick and Check trade. The problem was to dye efficiently a fast blue. In the middle of the century the Board of Trustees feared that Kirkcaldy would lose the Check trade completely/

1. Loch. op.cit. p.55.
2. S.R.O. B.O.T. NG 1/42/1 op. cit.
3. Scots Magazine Vol XXV 1763 page 650.
4. S.R.O. B.O.T. NG 1/1/19. 6/8/1770.

completely to ~~Manchester~~ because of the high cost and low efficiency of Kirkcaldy dyeing. "The mean colour of your checks - both blue and white - does not even stand washing". They wanted Provost Whyte to press ahead with the town's proposal to build a dyehouse.⁽¹⁾ The finishing of yarn would remain inefficient as long as weavers dyed and bleached their own yarn. Although complaints continued, partly perhaps because the Trustees were not empowered to deal with improper dyeing⁽²⁾ and the industry remained on a small scale, wind-driven indigo mills being a common sight in Kirkcaldy in the late eighteenth century, the Scots Magazine in 1763 was impressed with the ~~dyery~~ that had been set up at Kirkcaldy with its "eight large blue fats,^(sic) for dyeing Linen and cotton yarn and printed napkins"⁽³⁾ though the writer was careful to remark that "These two works are carried on by South Britons".⁽⁴⁾

England was a key to the development. The Manchester methods of working were imported, in the case of Elie, physically, when the Gavins were given a three-year grant of £39 per annum to bring cotton spinners and weavers from Manchester to teach fustian weaving⁽⁵⁾ and in the use of cotton for the blue in Checks. The cotton was easier to dye and took a stronger blue. About the same time improvements began to be made in the weaving of the cloth and Kirkcaldy goods started to find an increased sale in the London Market. As the Tick and Check industry was prone to greater fluctuations than the coarser cloths/

1. S.R.O. B.O.T. NG 1/1/13 12/12/1755.
2. S.R.O. B.O.T. NG 1/3/17 12/1/1797.
3. Scots Magazine Vol XXV 1763. p.650.
4. Ibid
5. S.R.O. B.O.T. NG 1/1/18 20/2/1767.

cloths of North Fife and because of the longer production time due to dyeing and bleaching of the yarn, the industry was from the start run on capitalist lines. As expansion got underway the capitalists began to invest in bleaching and dyeing equipment. Thus Loch could soon write of Kirkcaldy "They/dye all colours well"⁽¹⁾ and in 1772 the first significant yarn bleachfield was set up at Tyrie near Kirkcaldy by John Fergus and Sons, (Manufacturers), with a £50 grant from the Trustees, matched by a similar grant from the landowners, Lord Sinclair and Ferguson of Raith, who let the property on a long lease.⁽²⁾ But the supply of suitable water was limited in the Kirkcaldy area and the increase in trade stimulated the development of the River Leven as a supplier of power and presaged the coming of the power spinning mills in the nineties. Mark Stark, the first power spinner in the Dunfermline area was given a grant for Leven Bleachfield in 1785. Strathendry field was developed in 1781 and Robert Birrell, merchant and manufacturer, Kirkcaldy, was given a £100 grant for Strathendry in 1788 and John Melville and Son, Dysart, the spinning pioneers at Prinlaws appealed for a grant for their bleachfield there in 1784.⁽³⁾

The developments show that market forces and not the encouragement of the Trustees were the vital factors, though the prerequisite in many cases of matching grants by landowners as a precondition of the Board's encouragement ensured landlord involvement in the coming developments. Of more/

1. Loch Vol.II p.40.
2. S.R.O. B.O.T. NG 1/1/19. 4/3/1772.
3. S.R.O. NG 1/1/26 10/12/1788; NG 1/1/24 17/11/1784; NG 1/1/24 15/12/1784.

more intrinsic value were the Board's grants for yarn boiling and drying houses which more nearly matched the cost of these projects, and allowed the small manufacturer to give out better yarn or for small men to club together to improve the yarn for their own use as in the case of the Strathmiglo Manufacturers, whose petition was backed by General Skene the proprietor of Strathmiglo. The Trustees gave just £20 for "the general should contribute the rest of the expense."⁽¹⁾

The development of bleaching by the Dunfermline trade could only be indirect, so long as the town water supply remained unsuitable for bleaching. However, by increasing the output of finer cloth the trade stimulated the use of improved methods in the long-established bleaching centres near Perth and encouraged enterprises to be set up on the river Devon in Clackmannan, notably Haig's bleachfield at Dollar, started in 1787. Significantly it was this field which won the Board's prize of £25 for the first cloth bleached successfully by the new methods of chemical bleaching.⁽²⁾ The growth of the Fife bleaching and dyeing trade, therefore, awaited the injection of capital into the industry in the latter half of the Eighteenth century; its development was constrained by the sale of much of the Fife output unbleached and by the lack of facilities for bleaching in the principal weaving centres. Large-scale yarn bleachworks awaited the chemical developments of the Nineties which revolutionised the bleaching process and the concomitant developments in yarn spinning which encouraged the exploitation of new and existing facilities, /

1. S.R.O. NG 1/1/24. 7/7/1784.
2. S.R.O. NG 1/1/27 9/2/1791.

facilities, particularly those on the River Leven pioneered in the Eighties.

If the Trustees' contribution to the finishing trade is limited, the extent of their effects on the weaving trade are obscure owing to the scattered, domestic nature of the trade. Firstly, claims were made for improvements which were already well-established in other centres such as the improved diaper loom. Secondly, valuable improvements were slow to be adopted and thirdly, grants were given for theoretical improvements which had no practical application or were no more efficient than the methods they were designed to replace. (See notes 1-4 p. 58 below) Nevertheless, grants could well be generous in relation to the wages earned by the inventors, who were usually weavers, and there was throughout the Board's existence a continual stream of new ideas being put forward, which the Trustees were ready to publicise. The landowners, too, who served on the Board were very much aware of the quality of weavers' work for they were the main employers of customer weavers for their household needs. Thus, in the case of the Leven and Melville family which had a member on the Board in the period, there is a small book for the years 1784 and 1785 which indicates that the estate gave out large quantities of yarn to be woven in Pitlessie and Kettle to make Damask Napkins, fine Holland and Hall table cloths as well as sheeting "(17½ spindles to Robert Mackie to make 44 yards of linen, 2½ broad, intended for our own/

own bed)"; yard wide linen, striped and chequered cloth "to be yard and $\frac{1}{4}$ wide for a gown" and also chequered linen. Cotton yarn was purchased in Perth, some yarn was got in Edinburgh and the fine cloth when finished was sent to Huntingtower to be bleached.⁽¹⁾ All this suggest that at least some of the important men who sat on the Board of Trustees were directly involved with the producers in the provision of their extensive needs, and would be concerned to improve the quality of their purchases.

A prerequisite of more even cloth was the use of better reeds and in the earliest years the Board provided a reedmaker to provide instruction "in that business in which they were very unskilful".⁽²⁾ The incorporations, too, encouraged reedmakers, and Charles Roy was made a freeman in 1743 of the Dunfermline craft.⁽³⁾ The successive reedmakers in Dunfermline all owe their position to the incorporation and the Board of Trustees. One George Croll studied under the Board's Dutch reedmaker and settled in Perth in 1766 another Croll went to Dundee and from there to Dunfermline following a petition by the Incorporation of Weavers to the Trustees for a reedmaker.⁽⁴⁾ When Croll died he was replaced by Alexander McIntosh who was enabled to purchase a steel reedmaking machine with a ten-pound grant from the Board and, when he in turn died, his assistant William Chalmers became reedmaker in Dunfermline and was given McIntosh's machine.⁽⁵⁾ The Board was particularly concerned to spread the/

1. S.R.O. Leven and Melville Papers. GD 26/5/12.
2. States of the Annual Progress of the Linen Manufacture p.4.
3. D. Thomson, The Weavers Craft p.307.
4. S.R.O. B.O.T. NG 1/1/21 25/6/1777.
5. S.R.O. B .O.T. NG 1/1/34 7/12/1819.

the use of the fine, steel reeds and the machines for making them and here again the scale of provision was such that the Board could make a real contribution. Thus William Ireland whose family had been reedmakers in Buchhaven for over one hundred years was unable to afford a new reedmaking machine till given a grant for £27.⁽¹⁾ Again in 1824, John Beveridge, reedmaker in Kirkcaldy, was given £15 towards the cost of a machine estimated at £43.⁽²⁾

The main developments in weaving were inevitably in improving the mountings of looms for fine, patterned work such as diaper and damask. By the end of the Eighteenth century the number of men per fine loom had been reduced from three to one and a mechanism, the forerunner of the jacquard machines had been adopted for producing the pattern on the cloth mechanically, so lessening the long and complicated process of memorising the pattern which had taken several weeks. However, it still took a long time to alter the mechanism for new patterns and heavy hand work was involved in putting the cords above the loom which controlled the warp threads according to the pattern desired. The development increased the weavers' productivity by not having to employ another man to work the pattern and with the introduction of the flying shuttle about the same time, productivity was again increased, for in weaving wide cloths such as Damask two weavers had been employed throwing the shuttle across the loom.

The/

1. S.R.O. B.O.T. NG 1/1/32 9/7/1806.
2. S.R.O. B.O.T. NG 1/1/35 15/6/1824.

The exact timing of these developments is uncertain. In 1780 John Wilson made a claim for an improvement in the Diaper loom and for the removal of the drawboy and, on the recommendation of the Magistrates and Weavers was awarded £20 by the Trustees.⁽¹⁾ This development had certainly been made before, though perhaps not widely used in the town for John Walker, Stampmaster in Gatehouse of Fleet, made a claim for an improvement in the diaper loom which saved the use of drawboys in 1773 and he went to Dunfermline to demonstrate his loom and was given £25 on the recommendation of the weavers of Dunfermline and Mark Stark the principal manufacturer.⁽²⁾ In other cases the Trustees gave premiums where no significant achievement had been made, thus in 1797 they examined a piece of Marseilled quilting made by Henry Meldrum of Dunfermline but found it inferior "in beauty of fabric and patterns to similar Manchester goods" but gave him £10 "because he appears to have discovered the method of weaving the cloth without assistance."⁽³⁾ Meldrum, however, persevered and in 1819 the Board gave him £30 to be shared with Robert McGregor, pattern drawer, for facilitating the weaving of diaper.⁽⁴⁾ Some improvements were widely recommended and adopted as in the case of the Dunfermline weaver, John Hutton, who was given £20 for his improvement on the sheeting loom and was recommended by the Incorporation of Weavers and the manufacturers of /

1. S.R.O. B.O.T. NG 1/1/22 26/6/1780 and NG 1/1/23 20/11/1782.
2. S.R.O. B.O.T. NG 1/1/20 30/6/1773 and NG 1/1/21 17/7/1776. As early as 1730 the Board had sent a loom to Dunfermline which it was said was able to make the pattern in diaper without the assistance of a drawboy and wrought with as much expedition and made better cloth than in the former way. States of the Annual Progress of the Linen Manufacture. Report for 1730 p.17. Obviously this improvement did not catch on or was in some way faulty.
3. S.R.O. B.O.T NG 1/1/29 1/3/1797.
4. S.R.O. B.O.T. NG 1/3/22 22/12/1819.

of sheeting and sailcloth in Dundee, Perth and Edinburgh.⁽¹⁾ About the same time improvements were made in the Damask loom by John Philp David Bonnar and John Cook, particularly Bonnar, who claimed that others encroached on his patent which was then sold to the Operative Weavers Society for £350.⁽²⁾ It would seem that no one invention revolutionised handloom weaving but that a number of small changes, often developed independently, greatly increased productivity and helped to facilitate the rapid expansion of the Dunfermline trade at the end of the eighteenth century. However, as in other cases the most important development came without the Board's assistance, namely the Jacquard machines from 1825. Nevertheless the premiums awarded by the Trustees do appear to have encouraged the inventive spirit in the weavers and to have diversified developments.

There can be few doubts that in the field of design, the Board played an important role and that the nascent damask trade was a signal beneficiary of the Trustees' determination to improve the quality of design. The characteristic ^{of} Scottish Eighteenth century Damask and Diaper design was its inferiority compared with imported goods. From about 1755 artists were commissioned to draw stock patterns⁽³⁾ and Henderson says that Dunfermline was provided with patterns by the Drumsheugh (Edinburgh) pattern drawer James Thomson. Many of these patterns/

1. S.R.O. B.O.T. NG 1/1/30 21/5/1800.
2. S.R.O. B.O.T. NG 1/1/30 28/5/1806.
3. A.S. Cavallo. To set a smart board. op. cit. p.55.

patterns lacked imagination and were poorly executed; they depicted the British flag, the Scottish Arms, armorial bearings flowers, birds and animals.⁽¹⁾ However, the main feature was a stereotyped quality owing to their not being drawn from nature. The Trustees realised by 1785 that they had done little to improve the quality of design and that what they described as "a kind of Academy in this city" (Edinburgh), had been of little help and they wrote to the Fifer, Robert Adam for advice, because "you always have a pleasure in pointing out whatever may be useful and ornamental to your country"⁽²⁾ The result was a new enthusiasm for the Board's Academy in Edinburgh, though it was not till 1798 that a new Academy of Art was opened in the capital, emphasising for the first time the importance of realism in art, for as the trustees confirmed, "It is equally certain, however, that this mode of study has yet been scarcely practised in Scotland".⁽³⁾ But it was 1808 before the Board recorded the first three Dunfermline weavers to be given places at the Academy.⁽⁴⁾ Among the Dunfermline scholars was Joseph Neil Paton, who was to become the leading Damask designer in the town. But the numbers remained few for parents felt it too expensive to send their children to Edinburgh and so in 1826, following a memorial from the manufacturers in the town, the Board, "considering the/

1. E.Henderson, *Annals of Dunfermline* p.489.

2. S.R.O. B.O.T. NG 1/3/14 28/12/1785. B.O.T. to Robert Adam.

3. S.R.O. B.O.T. NG 1/1/29 12/12/1798.

4. S.R.O. B.O.T. NG 1/1/32 23/11/1810.

the importance of the manufacture of table linen, the exertions which the manufacturers of Dunfermline have made for its improvement and how desirable it is that every effort should be made to place it on a footing with the Danask manufacture of Germany in beauty of design as well as fabric, agreed that £50 a year should be allowed towards the salary of a drawing master and other expenses." (1) In the same year the Dunfermline Academy was given much of the equipment from the Edinburgh Academy when it moved to its new site on the Mound, (2) and in the following year there were 36 pupils at Dunfermline and in a letter to James Hunt, a leading manufacturer, the Board wrote of the pupils' work "some of the specimens it was though indicate considerable promise." (3)

Up to this time the quality of design remained poor, notably because of the small scale of Dunfermline manufacture, the tedium of the long and delicate process of transferring design to design paper where every thread had to be accounted for and the failure to consult nature. Although Dunfermline had begun to use local patterns from the end of the century and the Manufacturers had encouraged a drawing master to come over from Edinburgh in 1798, who died soon after; (4) and there was also John Lothian, a weaver/^{who} had had a class for drawing from nature about 1806, (5) yet the quality remained/

1. S.R.O. B.O.T. NG 1/1/35 7/2/1826.
2. S.R.O. B.O.T. NG 1/1/35 4/7/1826.
3. S.R.O. B.O.T. NG 1/3/23 30/11/1827.
4. Henderson, Annals of Dunfermline p.538.
5. Ibid p.557.

remained poor especially compared with other fabrics, notably printed cottons.⁽¹⁾ Thus the Scots Magazine found that although by 1815, manufacturers were paying more attention to design and were now employing people to draw patterns, the designs, notably of flowers, remained "drawn more from imagination than from nature."⁽²⁾ To improve the standards the Trustees offered premiums, at first for the simplest designs and then gradually increasing the intricacy of patterns as the standards improved, and dropping premiums from goods which had been perfected. The first Fife prizes in 1780 were for chequered linen won by John Fergus and Son Kirkealdy and Robert Pratt, a weaver there.⁽³⁾ At the beginning of the nineteenth century, prizes were won by East Wemyss firms but they were often the only entrant and the prize given was the lowest.⁽⁴⁾ It was 1791 before a Diaper pattern was won by Dunfermline and 1810 before a prize was given for a Damask design - indicating the small scale of the trade. The first premium winners, were not designers but weavers, like the inventive Bonnars and John Cook who were rewarded for their loom improvements. In 1811 premiums began to be concentrated on Fife products, especially Damasks, which won £192 of the £229 offered. In the same year there is the first mention of a painter, John Dewar of Dunfermline, amongst the gainers. From 1812, the intricacy of pattern/

1. A. Mercer History of Dunfermline p.172.
2. Scots Magazine Volume 77, 1815. p.419.
3. S.R.O. B.O.T. NG 1/1/22 26/1/1780.
4. S.R.O. B.O.T. NG 1/1/34 21/11/1820.

pattern for which prizes were given and the range of awards was increased and the prize money raised. 1818 was the first year that J. N. Paton won a premium and in later years he won considerable sums, e.g. £42 in 1824 and £36 in the following year. Between that year and 1838 some 25 Dunfermline designers won prizes, Paton being the most prolific, but standards were slow to improve; thus the judges in 1824 commented "Joseph Paton Dunfermline, whose merit was found so great, and that of the two other competitors so small that both the premiums were adjudged to him."⁽¹⁾ In the following year the Board again increased the intricacy of the patterns "with a view if possible to bring your fine manufacture on a par with Germany to which it is yet prodigiously inferior one can scarce bear to look at the one in comparison with the other."⁽²⁾

At the time of the Great Exhibition of 1851, the Art Journal wrote "In no branch of Art Manufacture do we perceive such unequivocal signs of advancement as in the Damasks produced of late years in Scotland and Ireland."⁽³⁾ What were the reasons for the improvement? In his evidence to the Select Committee on Arts and Manufacturers of 1835, Skene, the Secretary of the Board of Trustees ascribed the improvement largely to the Board's School at Dunfermline and its premium policy.⁽⁴⁾ Other factors were important, notably the introduction/

1. S.R.O. B.O.T. NG 1/1/35 23/11/1824.
2. S.R.O. B.O.T. NG 1/3/23 27/1/1825.
3. Art Journal 1851, Illustrated Catalogue p.64.
4. B.P.P. 1835 V Select Committee on Arts and Manufactures p.457.

introduction of Jacquard machines after 1825 which gave designers much greater scope and reduced the dependence on the weaver's ability to memorise patterns, ^{and} the growth in the trade which encouraged Manufacturers to employ designers. But equally important was the quality of work and the esteem brought to the trade by a new breed of designer led by Joseph Neil Paton, and the Trustees can take the credit for his early training. Until the 1830s pattern designers were not yet considered a trade in Scotland and there was no copyright protection for artists. In the same period continental designers held a much higher place in society.⁽¹⁾ It was only with the appreciation of Paton's work that the quality of the Dunfermline designers began to be recognised. By 1840 there were 5 or 6 full-time designers in the town but significantly Chalmers describes them as, "all of the operative class"⁽²⁾ Yet, by 1851 for a cloth and napkin design, "as much as one hundred pounds are frequently paid."⁽³⁾

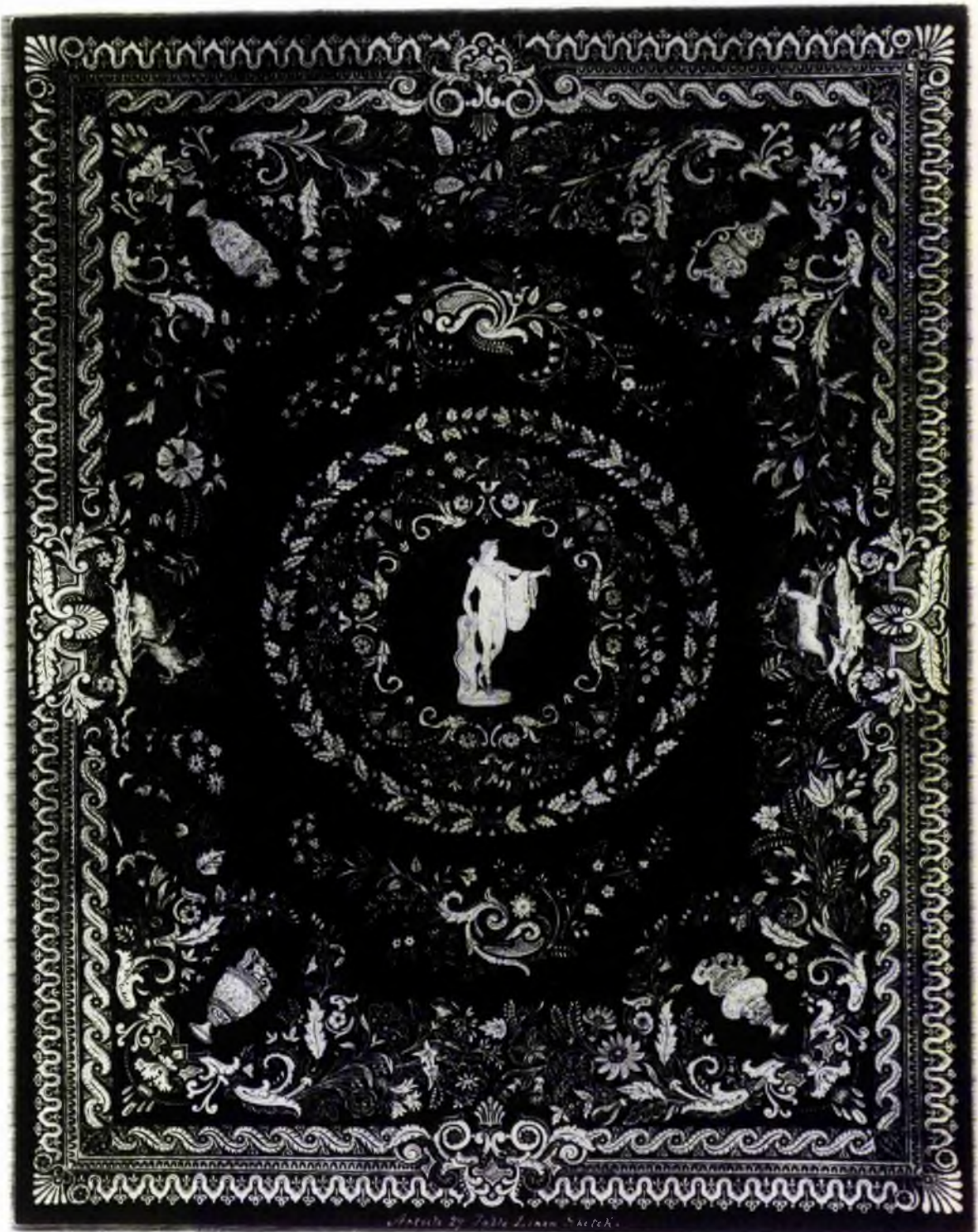
J. N. Paton, the son of David Paton, a Dunfermline weaver lived from 1797 to 1874. Like Andrew Carnegie's father and other leading Dunfermline craftsmen he was a follower of Swedenborg. Technically, his work was significant in developing patterns for continuous repeat device working which greatly speeded up productivity. (Damask cloths had/

1. Ibid p.466.
2. Chalmers, Dunfermline p.371.
3. Art Journal 1851 Illustrated Catalogue p.63.

had previously been woven individually). A collection of some 800 of his drawings at the Victoria and Albert Museum dating from the 1830s to about 1860 and drawn largely on scraps of paper such as parts of funeral intimations clearly illustrate the breadth and depth of his work.⁽¹⁾ (The funeral intimations largely for manufacturers also suggests the homogeneity of life in the Fife towns in the earlier Nineteenth century). Most of the designs were commissions sent to Paton or to the manufacturers for whom he worked. There is no indication that he confined his work to one firm or solely to Dunfermline. In 1855 there was a regimental design for the large Ulster firm, Wm. Coulson & Sons, Lisburn.⁽²⁾ There was a design for a Paris firm,⁽³⁾ and several designs were done for Manufacturers outside the town as Damask manufacture spread to other centres in Fife. A letter from Alexander Troup, Strathmiglo indicates the type of instructions given to Paton, following on Paton's original sketch for a design, "I think this border will do very well, be sure to make it distinct. I like them not to be too thick of flowering and to have a good deal of plain. If you could make betwixt the border and the satin a small wave about a $\frac{1}{4}$ of an inch wide on a 2/50 por. (sic) Web it would look better?"⁽⁴⁾ Among the designs are a number of crests for regiments and societies, the Church/

1. Victoria and Albert Museum, Print Room, Joseph Neil Paton Damask Sketches - 10b.
2. Ibid 10b 359.29 and 359.51.
3. Ibid 10b 361.26
4. Ibid 10b 356.99.

Design by J. N. Paton for a Damask Tablecloth
Ref. Victoria & Albert Museum, Print room.





Church of Scotland and members of the nobility and gentry such as James Hay Erskine Wemyss of Wemyss and Torrie,⁽¹⁾ and London stores such as Claridges.⁽²⁾ Paton was best, however, when he could express himself fully on special commissions such as cloths for the Royal family where his powers of bold design, attention to minute detail and the realism of his flowers and fruits turn the cloth into a work of art. In such designs he was able to make much use of vines, and flowers in the powerful scroll work of the borders and in the rich cornucopia which adorned his centres. Typical of this work was the cloth designed for Birrell of Dunfermline for the American Market and shown at the Great Exhibition.⁽³⁾

The Exhibitions of the middle of the century brought Dunfermline damasks onto the National stage and many of the Dunfermline prize winning goods were by Paton. But there were others too. Such was the scale of the Herow of the Crimea table cloth designed by Balfour and costing £600 that it was seen by 11,000 people at Dunfermline and exhibited to the Queen at Balmoral. By the time of the Paris Exhibition the Art Journal wrote, "The best Damasks exhibited by us were from the house of Beveridge of Dunfermline and they are of the highest kind".⁽⁴⁾ The firm concluded in its own history "Ever since these two great exhibitions the matter of design has continued to occupy/

1. Ibid T 10b 364.13.

2. 356.78.

3. Ibid 361.64 and Art Journal 1851. Illustrated Catalogue p.199.

4. Art Journal 1855.

occupy a preeminent position in the policies of the company."⁽¹⁾ In the second half of the century, the sale of fine goods depended on design and though in many fields British goods were felt to be inferior in design to continental, the importance of design in Fife textiles remained; thus in his evidence to the Tariff Commissioners, one of the leading Dunfermline manufacturers summed up the position. "In our works we have probably five or six (designers) and we take in juniors who are taught under our chief designer and then in connection with technical schools and manufacturers, offer prizes regularly for any that get their designs passed at the Kensington School of Art. I should not say that our designs are at all inferior to the foreign ones of the same class of goods".⁽²⁾ Thus, though one can not directly apportion the success of the Dunfermline Damask Trade to the efforts of the Trustees in the field of design, their aim was notably achieved and much importance, is attached to those designers who were schooled in realism at the Trustees' Academies.

The corner stone to the work of the Board of Trustees and the rock on which it eventually foundered was the extensive regulatory system designed for the infancy of the trade, which called for vigorous and rigid standards to improve the quality of output according to the economic doctrine of the day. Stampmasters were appointed in all the Linen areas with the job of inspecting all yarn and cloth and sealing with the Board's stamp those goods which reached the required standard. Under the system the/

1. Anon. Weave Trust with Truth p.21.
2. Tariff Reform Commission 1905. Volume 2 Textiles Trades, part 7. Para.3886.

the ^{amount} ~~quality~~ of Linen stamped greatly increased both in value and volume as the following table shows.

<u>Year to 1st Nov.</u>	<u>Number of Yards</u>	<u>Estimated Value to nearest £</u> (1)
1728	2,183,978	103,312
1748	7,353,098	293,865
1768	11,795,437	599,669
1788	20,506,310	854,901
1808	19,390,497	1,014,630
1822	36,268,530	1,396,296

Whilst the total value of Fife's output compared with that of Forfar fell by more than the comparative volume, the comparative value of Fife goods was maintained, indicating the rapid growth of coarse manufactures in Forfar. Compared with Renfrewshire, the relative value of Fife's output was always less but by the nineteenth century Fife had far outstripped the West in total quality and value indicating the rapid change there to cotton production. On balance, compared with Scotland as a whole Fife maintained a steady course, increasing its output from 19% in 1738 to 21% of the total whilst the value rose from 18 to 23%. However, much Linen was never stamped because it was made for domestic use. Thomson thought that about 1798 this would amount to 600,000 yards of plain Linen, which would be nearly 14% of the Linen stamped in Fife in that year.⁽²⁾ Further, the figures progressively underestimate the value of Fife output for it was/

1. Warden p.480

2. Thomson General view of the Agriculture of Fife p.304.

was not general to stamp Damasks and Diapers and stamping was not insisted on.⁽¹⁾ As the Dunfermline trade increased the anomaly became greater, even though Ebenezer McCulloch, the General Surveyor of the Linen Manufacture to the Board, had been especially instructed to do his best at Dunfermline "for getting all the Damask and Diaper Linen made in that neighbourhood to undergo the check of the National Stamp."⁽²⁾

The growth of the cotton industry was a further anomaly as cotton was not covered in the Trustees' brief; thus, when cotton began to be used in Kirkcaldy Ticks and Checks from the seventies manufacturers started to send them off unstamped, a practice which was increased by the Board's decision to allow cotton and linen goods for bleaching to go unstamped in 1786,⁽³⁾ and the laying down of the principle in 1787 that the Trustees "could not insist on the stamping of cotton cloth."⁽⁴⁾ The Board's authority was questioned in 1796 when the General Surveyor seized 11 pieces of cloth manufactured by Normand of Dysart containing 25% cotton which had been sent off unstamped. The Surveyor took Normand to the J.P. Court, where he was acquitted, only to have the case overturned by the High Court some of whose members were also Trustees.⁽⁵⁾ Another growing trade in Fife was sail cloth whose manufacture/

1. S.R.O. B.O.T. NG 1/3/14 8/4/1784.
2. S.R.O. B.O.T. NG 1/1/22 23/6/1779.
3. S.R.O. B.O.T. NG 1/3/17 28/1/1796.
4. S.R.O. B.O.T. NG 1/1/26 13/6/1787.
5. S.R.O. B.O.T. NG 1/3/17 13/2/96.

manufacture was covered by different Acts of Parliament and though the Board agreed that it had no authority to stamp canvas its authority was undermined, in that canvas was no longer made according to the old specifications.⁽¹⁾

As the century progressed Scotland began to make more goods in imitation of foreign products but these were often distrusted in foreign markets if they appeared to be British made. The English were even said to distrust Scottish Ticks and Checks, the equal of those made in Bristol, Wiltshire and Carlisle.⁽²⁾ John Melville of Dysart also wanted to send Russian-type Duck which was a growing manufacture, unstamped. The fact that he was the stampmaster himself did nothing to defend the stamping of cloth.⁽³⁾ Finally, when the Glasgow merchants began to penetrate foreign, particularly Spanish colonial markets, at the beginning of the Nineteenth century, they complained of their inability to sell stamped Linens and it was agreed that stamps might be cut from goods for export.⁽⁴⁾

Another small point was that as the length of webs increased the demand for part lengths grew, which tended to be stamped only at one end or not at all. The Board could not/see the rapid growth of the fore-Kirkealdy trade at the end of the century. To facilitate stamping it was agreed/

1. S.R.O. B.O.T. NG 1/1/28 11/12/1793.
2. S.R.O. J.C. 26/297. Foreigners may have remembered the poor quality of earlier Scottish goods and not seen the Board's stamp as a seal of approval.
3. S.R.O. B.O.T. NG 1/1/32 27/11/1811.
4. S.R.O. B.O.T. NG 1/3/20 25/5/1813.

agreed in 1766 that the principal manufacturers should have their own stamps and these were given to 12 producers including 5 in Fife notably J. Fergus and Sons, and David Millie. John Melville of Dysart was also made the public stampmaster.⁽¹⁾ First they substituted their own stamps for the national and then began to abandon them altogether. Not only did this place Millie and Fergus in a privileged position vis-a-vis the other Kirkcaldy manufacturers but Melville was also able to favour his own goods. The position was not eased by the stamps being removed from Fergus and Millie - for such was the size of their trade by the beginning of the nineteenth century that the Kirkcaldy Stampmaster was unable to fulfill his role efficiently, and lent out his stamps to Fergus and Millie and was roundly accused by John Melville Junior, the Dysart stampmaster. He, having gone bankrupt in 1805, depended on the revenues of stamping and looked enviously at the stampmaster in Kirkcaldy who was unable to cope.⁽²⁾

With regard to yarn too, the Board's position was not made easier by the fact that the first principal spinners in Fife, who believed stamping mill spun yarn to be unnecessary, were just those upon whom the maintenance of the system depended, namely, Walter Fergus, John Melville and at Kirkland the Dundee stampmaster Archibald Neilson. By 1800 the Fife spinners were petitioning the Board to do away with yarn/

1. S.R.O. B.O.T. NG 1/1/18 14/3/1766 and 7/8/1766.
2. S.R.O. B.O.T. NG 1/1/34 24/6/1823.

yarn stamping because of the impracticability of measuring the yarn where many threads were reeled at once and because with power mass production, buyers could get redress from individual producers. (1) The Board was not made more popular by its devolving the powers of inspection upon the local weavers' societies. Especially not the Cupar and St. Andrews Societies. (2) In 1805 the Cupar inspectors seized some Kirkland yarn but when they tried to inspect yarn at Kirkland in 1806 they were refused entry. (3) In 1801 the spinners, including Fergus, Aytoun and Melville had formed a committee pressing for the ending of stamping (4) and in 1807 produced a draft Bill. (5) The Fife spinners were joined by the Kirkcaldy manufacturers in leading the campaign against stamping because, said David Blair the General Surveyor "It is well known that there the manufacturers strongly disapprove of public officers in general." (6) Provost Walter Fergus took the leading part and following the abolishing of stamping in June 1823 he was given a public dinner addressed by the Earl of Rosslyn and General Ferguson. But stamping was probably already almost a dead letter, for Walter Fergus himself said of the Board's standards in 1823 "There are a great many more instances of deviation than of adherence to the Law." (7)

The system too had become inflexible, failing to adjust quickly to new growth areas such as Kenmure and Kettle and inconvenience had/

1. S.R.O. B.O.T. NG 1/1/30. 28/5/1800.
2. S.R.O. B.O.T. NG 1/1/31 7/12/1803.
3. S.R.O. B.O.T. NG 1/1/32 9/7/1806.
4. S.R.O. B.O.T. NG 1/3/18 17/3/1801.
5. S.R.O. B.O.T. NG 1/1/32 16/12/1807.
6. S.R.O. B.O.T. NG 1/21/1 Letter about Linen inspection 29/3/1803.
7. S.R.O. B.O.T. NG 1/60/79 p.19. 12/6/23.

had arisen where stampmasters and markets were in opposite directions.⁽¹⁾

From quite an early date goods began to be demanded outwith the Board's specifications^{as} at Kirkcaldy⁽²⁾ and as firms began to grow, their work was being done far from the local stamp office and was not liable for stamping in the place of production. This was especially true of Aberdeen and Kirkland goods produced in the Cupar area.⁽³⁾ Finally, the stampmasters were not always efficient, especially in North Fife. When Richard Neilson made a report on the stampmasters in 1775, he found that the Cupar Stampmaster was a publican "and is frequently intoxicated himself when doing business."⁽⁴⁾ In 1784 the Secretary to the Trustees wrote to the Stampmaster in Auchtermuchty.... "it is your common practice to stamp all cloth, however unequally wrought; that you are now quite superannuated and unable to judge of a piece of cloth, and that notwithstanding you will not allow an assistant even if he were capable to do his duty"⁽⁵⁾ In 1800 the Secretary wrote to the Cupar Stampmaster "You are almost continually intoxicated" and to the Stampmaster at Kettle that he had stamped faulty goods, the worst being "manufactured by a near relative of your own."⁽⁶⁾ And finally in 1810 the General Surveyor had found at Auchtermuchty "George Dron the Stampmaster, in prison for debt and his father doing the business though/

1. S.R.O. B.O.T. NG 1/3/17. 24/6/1795.
2. S.R.O. B.O.T. NG 1/1/18 22/6/1764.
3. S.R.O. B.O.T. NG 1/3/19 15/4/1812.
4. S.R.O. B.O.T. NG 1/1/21 5/7/1775.
5. S.R.O. B.O.T. NG 1/3/14 27/12/1784.
6. S.R.O. B.O.T. NG 1/3/18 27/11/1800.

though he had been expressly interdicted by the Board from employing his father on account of his habit of drinking. (1) Though these cases were isolated they did nothing to help the system, and with the growth of larger manufacturers and in an era of rejection of official regulation on a national level no system could survive when the men, who were appointed to defend that system made use of it for their own ends, so long as it suited them, and were determined to destroy the system, as soon as it ^{outlived its} usefulness, ~~was destroyed~~.

If we agree to the sentiments expressed in the Secretary to the Trustees' letter to Lord Glenbervie that the Board was run by gentlemen of character and distinction receiving no reward "then what arises from the consciousness of discharging the duty they owe to their country." (2) What did the Board of Trustees achieve, what was the reward?

The Board never had enough money and therefore had to spread their funds about. In some cases industry would be successful without their aid, in other cases it would not be successful even with aid. For this reason requests for aid from Fife were often refused and little help was given with the cotton industry. Thus they would not supply cotton Jennies at Kirkcaldy because "the Board was not in the practice of appropriating any of their funds to encourage the cotton manufacture, chiefly/

1. S.R.O. B.O.T. NG 1/1/32 28/2/1810.
2. S.R.O. B.O.T. NG 1/3/19 30/11/1802.

chiefly because it goes on with sufficient spirit without public aid."⁽¹⁾

The Board operated on the principal that ... "it is much more their duty to assist such as introduce a branch of manufacture in the remote and distant parts of the country."⁽²⁾ Their funds were thus further limited in assisting expensive projects in the South and in the case of bleachfields were probably little more than a mark of appreciation and an award for effort. Thus £50 was given in 1802 to William and Robert Russell "as a mark of approbation of your public spirit in laying out Roth's Bleachfield."⁽³⁾

The Board's efforts may have been most successful where the payments were highest in relation to the total cost or where the premium, though small, was important to the recipient. Thus in the provision of drying house and boiling house grants, in the provision of grants for sheds at lint mills, in the provision of heckles, reeds and reedmaking machines, small men of limited means were benefited. The Board too believed that it had been successful in promoting the Damask Trade "The fruits of that encouragement were conspicuous in the high degree of proficiency and the extent to which the branch has risen."⁽⁴⁾

The Board too was aware of its failures and also of its untenable position in the changed world of the Nineteenth century. In a letter to Neilson & Co, Kirkland the Secretary was surprised that linen/

1. S.R.O. B.O.T. NG 1/1/26 25/6/1788.
2. S.R.O. B.O.T. NG 1/3/14 17/4/1786.
3. S.R.O. B.O.T. NG 1/3/19 30/11/1802.
4. S.R.O. B.O.T. NG 1/60/54. Report of a committee on changes in Premiums p.4.

linen bounties still continued...."tis surely a very questionable policy to bolster up the manufactures at such a very great expense, altho' we in this office are every year in the practice of eulogising it in our annual report to the King, as absolutely necessary for enabling our manufacturers to meet the Germans in foreign markets.

However, the true success of the work of the Trustees lay in the fact that they created a linen industry which no longer needed them. As long as capital remained unimportant the independent weaver could always improve himself with the Trustees' aid but by the Nineteenth century, a manufacturing class had arisen which no longer needed the Board's help. Lord Melville disliked the Bill to abolish the stamping of Linen because "it seems to be to procure for themselves as capitalists a monopoly of the trade."

CHAPTER 3

The Coming of the Power Mills

The last quarter of the eighteenth century saw the rapid growth of the cotton textile industries of Lancashire and West Central Scotland. To meet the challenge, the smaller textile producing areas such as Fife were left with three options. They could either revolutionise the output of linen goods, thus increasing the supply of coarse goods which did not compete with cotton and reducing the cost of quality goods; or they could attempt to meet cotton on its own ground by producing cotton goods and increasing the cotton content of linens, a policy which was not, in the long term, possible; or finally, they could concentrate on other textiles such as wool or new industries such as papermaking. Whatever choice entrepreneurs were to make, the development of industry lay in increasing output by harnessing power to drive machinery.

Initially, developments were orientated in the direction of waterpower and in Fife this resulted in the main developments taking place outside the principal centres of urban growth, Dunfermline and Kirkcaldy, for in neither town was there any significant, suitable supply of water. The most important developments both in scale of operations and in terms of duration, took place on the only significant water courses, the Eden and its tributary the Ceres Burn and the Leven, especially the Leven with its regular supply of water and its proximity to the expanding capitalistic Tack and Cheek trades of Kirkcaldy and the harbours of Leven and Kirkcaldy. The Leven Valley was, too, the centre of the county's flax growing and the home of some of Fife's most important/

important landowners, the Earls of Rothes, the Balfours, connected with the estates of Balbirmie, Balgonie and Balcourvie, the Earls of Leven and Melville and the Wemyss of Wemyss. These estates contained ancient and important coalmeasures worked by the landowners for generations and these mines were dependent for their efficient working on the pumping engines worked by great water wheels on the River Leven. The River was, therefore, also the place where the greatest potential conflict of economic interests existed and where developments depended on the ~~again~~ ^{decision} of some of the most important landowners in the county with strong vested interests in the use of the river and close involvement in the use and potential of water power. This chapter, therefore, attempts to show how Fife became, in the field of power-produced textiles, primarily a flax spinner. It will show who the early spinners were and how they raised their funds, the problems they met with and some of the reasons for their failure. Particular reference will be paid to the River Leven and the ways in which industry grew along its banks.

The particular nature of Fife's landowners in the period, must first be noted. Pennant summed up the nature of the county, thus:

"Fife, a county so populous, that excepting the environs of London, scarce one in south Britain can vie with it; fertile in soil, abundant in cattle, happy in collieries, in iron stone, lime and freestone, blest in manufactures, the property remarkably well divided, none insultingly powerful to distress and often to depopulate a county, most of the fortunes of a useful mediocrity"⁽¹⁾

Who were the men willing or able to exploit this potential? In the first/

1. T. Pennant. A Tour in Scotland 1772 part II p.211.

first place Fife with its important Royal connections was the home of many families which owed their prestige to Royal favour but whose estates were insufficient to sustain the style to which the original title holders had become accustomed. Prominent amongst these families were the Earls of Rothes and the Earls of Leven and Melville. In the second place Fife is adjacent to Edinburgh, the centre of the law and many legal families came from Fife or had estates there. These men were important for two reasons. Firstly they were practising in a city which was at the forefront of ideas and were receptive to the newest ideas and, secondly the important families made much use of Edinburgh lawyers especially where, in the case of the Rothes or Leven and Melville families, lack of money or lack of male heirs led to increasing direction from the families "doers", as their estates were put in the hands of trustees. There was thus, a close interaction between the great landowners, who needed cash and the lawyers who had means of raising it, hence the importance of families like the Moneypenny's of Pitmilly or men like James Stuart of Dunearn, closely connected with improving economics and with practical improvers. (1)

The/

1. Legal families can be taken almost at random and connections found between them. Thus the Moneypennys were agents for the Sutherland family at the end of the Eighteenth century. When James Loch the Sutherland's overall factor for much of the first half of the Nineteenth century wanted to find out about spinning he took the advice of Walter Fergus of Kirkcaldy a close friend of James Stuart who was later to become one of the first factory inspectors. Loch himself spent some time in Fife at the home of his uncle, Adam of Blairadam. In other cases the same legal agent e.g. Crawford Tait of Harvieston dealt with several leading Fife families. These Edinburgh legal agents were known as "doers", giving mostly legal and financial advice in contrast with the "factors" who worked on the estates.

The genesis of development on rivers such as the Leven was long and slow. Here, landowners did far more than provide indirect aid by sitting on official boards e.g. Lord Balgonie and the Earl of Moray on the B.O.T. encouraging local agricultural societies or subscribing to Turnpike companies to improve the inadequate infrastructure in the county. (1)

Every estate had its cornmill, usually let on a 19-year lease and the landowners jealously guarded their rights of thirlage over the mills. The river's connection with textiles stretch back at least to the sixteenth century, reference being made to the corn and waulkmills of Methil in the title of David Wemyss of Wemyss (1542). (2) The Rothas papers make several references to Waulkmills. In 1686 the Waulkmills of Caskieberrans (part of modern Glenrothes) are mentioned and in 1715 there is a receipt from Robert Walker, Walker of Walkerton. Sparrowmill, (in the early nineteenth century Robert Kirk of Kirkcaldy's snuff mill) mentioned in the Rothas accounts was also a Waulkmill, for a letter of 1793/

1. Developers of course were not confined to the Leven valley, the coal works of West Fife and the coastal salt works being especially important. The Earl of Elgin's Lineworks at Charlestown were the largest private works in Britain (Smout, Scottish landowners and Economic growth p.228). Contemporaries singled out certain families for particular mention thus Loch page 37 vol. II mentions Sir Robert Henderson of Fordell, builder of St. David's harbour as "a public spirited, worthy gentleman, and a great promoter of trade and industry." In the same class come the Durhams and Colonel Moneypenny of Pitmilly (ibid p.49). In river use itself, the Eden had been made use of for many centuries. A Jespersen in his "Water Mills of the River Eden, 1950, reckoned that in 1645 there were 12 mills on the river occupying 39% of the sites. These included at least three sites, Tarvit, Cupar and Lydax which were later used as flax spinning mills.
2. A.S. Cunningham. Rambles in Scoonie and Wemyss p.165.

1793 refers to the Waulkmill of Sparrowmill.⁽¹⁾ Haughmill at Windygates was another Waulkmill till its conversion into a flax spinning mill in 1794. Balgonie, Prinlaws and Leslie were also sites of eighteenth century flaxmills, Leslie being the most important in the county at the survey of 1772.⁽²⁾ The Rothés estate papers reveal the landlord's involvement in the running of the mills; not only are there various stipulations in the leases but in particular years, as in 1727, specific orders were given covering the building of Mildeans Mill and the repair of Leslie Mill (both of which were later used for flax preparing.)⁽³⁾ These examples illustrate both the long textile heritage on the Leven and suggest the laying of the capital infrastructure for later developments.

The main direct involvement by landowners was in the management of their coal measures. Reference is made to the workings at Kirkland as early as 1611⁽⁴⁾ and in the following centuries, the Rothés family, the Levens and Melvilles, the Balfours and the Wemyss families engaged in continuous schemes to exploit the mineral wealth on their estates. To drain their mines, they used pumps driven by great waterwheels; thus at Balgonie about 1800 a twenty seven-foot diameter breast shot wheel was being used.⁽⁵⁾ The coalowners, therefore, had a vested interest in the/

1. S.R.O. Rothés papers GD 204/68/2. R. Beatson to Tait 6/3/1793. Kirkcaldy Museum, Rothés, papers miscellaneous accounts passim.
2. S.R.O. B.O.T. NG 1/19 Report on Lint Mills (1772)
3. Kirkcaldy Museum. Rothés papers. miscellaneous accounts.
4. Cunningham op cit. p.165.
5. S.R.O. Leven and Melville papers GD 26/V/716

the potential of the River Leven and the Wemyss family as "heritable bailies and keepers of the water of Leven" had the right to redd the mouth of Loch Leven, a practice which they followed in dry weather.⁽¹⁾ Thus the coalowners were well aware, before the coming of the spinning mill owners, of the problems of maximising the rivers potential.

As the linen industry of Fife developed in the eighteenth century and demand grew for better quality yarn the rising capitalists of Kirkcaldy and Dunfermline began to seek suitable water for bleaching their yarns. Walter Fergus had feued bleaching ground at Tyre⁽²⁾ in the parish of Abbotshall and there was bleaching on the West and Denturns at Kirkcaldy, but these supplies were inadequate. The entrepreneurs, therefore looked to the River Leven, the largest watercourse within easy reach of their trade. The first bleachers had gone to Cabbagehall⁽³⁾ and Balbirmiebridge in the 1740s and to Leven before 1763 but the first large scale developments were not till the 1780s, when developments began to set the pattern for future exploitation of the Leven and the millowners of the future began to get a toehold on the river. The Board of Trustees had given a lead by only granting aid to bleachers who had acquired sites on long leases and whose petitions were signed by persons in authority, and often, only where the landowner would agree to match the Board's grant, as had been the case at Tyrie. Thus/

1. S.R.O. Leven & Melville Papers GD 26/V/728.
2. S.R.O. B.O.T. NG 1/1/19 4/3/1772.
3. S.R.O. Saxines, Fife, Places 1781-1820, 7326. John Smith was seized in Cabbagehall 31/10/1741. S.R.O. B.O.T. NG 1/42/1, premiums for Bleaching and setting up Bleachfields, 1729-1772.

Thus landlord involvement was insured from the start. In 1784, Mark Stark the Dunfermline merchant, leased the Leven Bleachfield from Mr. Gibson of Durie, "For the purpose of carrying on the business of bleaching and manufacturing Linen in which he had every encouragement from Mr. Gibson the superior."⁽¹⁾ In the same year John Melville, the Dysart Manufacturer and Stampmaster began to bleach at Prinlaws, the project costing £350 with a lease of 57 years.⁽²⁾

In the boom conditions of the late eighties, developments came fast. In a period in which cotton mills were being put up all over Lancashire and the West of Scotland, efforts to spin flax by machinery were frustrated till the development of Porthouse and Kendrew's patent machinery at Darlington in 1787. Fife developers were quick to see the possibilities. In February of 1788 Archibald Neilson wrote to the Board of Trustees, "I do not doubt the erection of the flax spinning mill. I heard some time ago that the people in Fife had applied to the patentees for some of them."⁽³⁾ Within a year the same Archibald Neilson, merchant and stampmaster in Dundee, had signed a 99-year lease of a site at Kirkland and was spinning flax there by 1790,⁽⁴⁾ less than a year after John Marshall began to spin near Leeds and about a year after the first Scottish flax spinning mill, that of Sime and Thom at Bervie.⁽⁵⁾ Again the focus for development was the River Leven, for as the/

1. S.R.O. CS 238 5/12/84 - Stark v Heritors of Leven
2. S.R.O. Sasines Fife, Places 1781, 1820, No. 888.
2. S.R.O. B.O.T. NG 1/1/23. 15/12/1784.
3. S.R.O. B.O.T. NG 1/3/15. 11/2/1788.
4. S.R.O. CS 232/W/23/2. Wemyss v. Peter, 1826.
5. A. Warden, Linen Trade, p.489.

the writer of the Statistical Account emphasised of Kirkcaldy "The parish affords no water for the necessary operation of bleaching or for driving the machinery by which the spinning both of cotton and flax is now beginning to be performed."⁽¹⁾ The correspondence of Robert Beatson, the factor to the Rothes family throws some light on the entrepreneurial enthusiasm of the time, especially in 1792 when developers sought sites for spinning cotton and flax and for paper making. In August, Beatson was pointing out the qualities that were being sought. He wrote to Tait in Edinburgh, the projectors for a paper mill at Auchmuty seek "A constant and plentiful supply of good clean water, free from iron water, from coal workings. Secondly to be near coal and wood and stone, in the neighbourhood of a village."⁽²⁾ In September "William Ted Links (Kirkcaldy) offered for a cotton mill at Leslie,"⁽³⁾ and in October much was to be expected from Walter Fergus of Kirkcaldy who was looking for a larger site for a bleachfield. "Mr. Fergus comes here tomorrow to visit the waterfalls..... He is a person that has great quantities of ready cash that can be depended on". But Fergus was put off and his developments postponed.⁽⁴⁾ In the same year Mark Stark and John Melville negotiated with the Earl of Leven and Melville for a mill site at Balgonie but again they began their developments elsewhere, Stark at Brucefield near Dunfermline and Melville at Prinlaws. The Question/

1. O.S.A. Kirkcaldy, Vol XVIII. p.35.
2. S.R.O. Rothes Papers, GD 204/65/5. Beatson to Tait 8/8/1792.
3. ibid GD 204/68/2 " " " 19/9/1792.
4. ibid " 25/10/1792.

question of coal versus textiles had not been resolved.

Development was essential; smaller landowners like the Balfours of Barbirnie could not maintain an adequate style of living from their estates and the Rothes and Leven families were hopelessly in debt. By 1800 the Earl of Leven was indebted to the sum of £40,000 and in the following years he was spending more than £1,000 per annum over the annuity allowed him to clear his own and his late father's debts.⁽¹⁾ Fund raising expedients were essential. The Rothes family was in a worse position. By the seventeen fifties they were indebted to the amount of £50,000 and the family was forced to put its land in the hands of trustees. In spite of some sales the position was made worse by the destruction of Leslie House by fire in 1763 and for all the stringent efforts of the Countess Jane and with further land sales the family were still short by £5,000 in 1817.⁽²⁾ An easy way out seemed to lie in the exploitation of the coal measures; thus the Rothes family retained these when their lands were put in the hands of trustees. In the same way, Lord Balgonie saw the management of his coal mines as a worthy aristocratic pursuit "The coal has been constantly under Lord Balgonie's management and direction and when at home it is a source of some business and amusement to him."⁽³⁾ This is the key to the landlord's attitude. Coal seemed an extension of their improving/

1. S.R.O. Leven and Melville Papers, GD 26/13/810.
2. I am indebted to Mr. Hosie of Kirkcaldy Technical College for drawing attention to the financial situation of the Rothes family.
3. S.R.O. Leven & Melville papers, GD 26/13/810 18/12/1799.

improving agricultural function but it would be illogical for them to engage directly in manufacturing industry, when the aim of the entrepreneur was to make enough money to set himself up on the land. Thus, when John Balfour wrote to Balgonie about 1800, Balfour said he would be happy to lease Balgonie's coal works but he would have nothing to do with an ironworks: "I have no idea of engaging in any infernal schemes" he wrote. ⁽¹⁾ Thus, although Lord Leven gave serious consideration to the proposals of Stark and Melville for development at Balgonie and memos were written by the agents including all the correspondence between the parties, agreement was not reached, possibly because of the coal issue. ⁽²⁾ Certainly coal came first, for one clause in the memo read: "The feuwar shall have the whole water after serving the coal work" ⁽³⁾ and in a letter to Tait, Beatson wrote "Some gentlemen from Kirkcaldy made an offer for Balbirmie flour Mill, but the Lord on account of his coal could not agree with them." ⁽⁴⁾ Further, the two early developments were on sites where there was no clash with coal mining. Prinlaws was above the coal workings and at Kirkland the coal workings had ceased in 1785 and acted as a natural drainage system for the new workings further up the coal face. William Wemyss, the landowner was, therefore, willing to lease the site with its ready-made dams and lades and throw in the wheel from the old coal engine for good measure. ⁽⁵⁾

But/

1. S.R.O. Leven & Melville papers, GD 26/V/21 (no date).
2. " " " GD 26/V/719. Unfortunately the actual correspondence has not survived.
3. S.R.O. Leven & Melville papers, GD 26/V/719.
4. S.R.O. Rothes papers. GD 204/68/2. Beatson to Tait 8/8/1792.
5. S.R.O. CS 232./W/23/2. Wemyss v. Peter. 1826.

But at Balgonie and Balbirnie and to a lesser extent at Leslie, much was expected from the coal measures. However, at Leslie, the Rothies family were involved in large capital expense for small returns and at Balgonie the problems were greater. Here there were deposits of iron ore as well as coal and in 1801 a 38-year lease was granted to the Leven Iron Co. at a rent of £1,300 per year, made up of coal £800, iron ore £300 and water rights £200 but by 1803 the Company had failed and the Earl was left with the capital he had sunk in the works.⁽¹⁾ As long as there were no industrial users of the coal near the mines and as long as there were ample stocks of coal for export from mines by the sea as at Leven, the return from inland mines would be small.

Another disadvantage, especially of ironworks, was the threat of pollution and it needed the reassurance of Lord Balgonie's financial adviser, William Keith, to calm his Lordship's fears of the effects of an ironworks on Balgonie estate; Balgonie also received the following letter from Neil Ballingal, Balbirnie's factor "I do not think if properly set down Balgonie Castle will be annoyed at all.... your estate might be much benefitted by such an establishment."⁽²⁾ Following the sequestration of the Leven Iron Works, Kyd, the Leven and Melville factor was very reluctant to let the ironworks unless a very good price could be got." This trade is a nuisance to all the fields and woods in its/

1. S.R.O. Leven & Melville Papers, GD 26/V/374.

2. " " " GD 26/V/370 and GD 26/3/21 9/10/180

its neighbourhood" he wrote to George Inglis; The Earl could "let the fall at a good rent and could let the Mill lands at Balgonie as a Bleachfield."⁽¹⁾ The Landowners were realising the potential of textile developments and began to advertise their falls. Thus in 1799 the Rothes estate was advertising the falls and mill lands at Auchmuty (later Rothes Bleachfield and Tullis' paper mill) both for conversions and new developments.⁽²⁾ At the sale of Balgonie Estate in the twenties, the mineral and industrial advantages were highlighted "The Lands contain within them extremely valuable and extensive mines of coal and ironstone and lime is to be got at a short distance. The coal especially may be wrought to great advantage. The river Leven runs through the estate and there are valuable falls on it for machinery among which, there is one of no less than 21 feet."⁽³⁾ As late as the eighteenth thirties sites for watermills were being advertised, for example in 1835 Balfour offered Shythurum as "suitable for a spinning mill, Bleachfield or the erection of any machinery whatever."⁽⁴⁾

One reason for encouraging industry was that it had become fashionable. "By 1800 building a model village or small burgh was an established and popular method by which a landlord could undertake capital investment on his estate. It was accepted that some form of textile/

1. S.R.O. Leven & Melville Papers , GD 26/V/728. Kyd to G.Inglis 11/2/1805.
2. Edinburgh Advertiser, 6/12/1799.
3. Edinburgh Advertiser, 30/7/1822.
4. F.H. 8/1/1835.

textile industry was an essential prerequisite."⁽¹⁾ Such action was also sound economic policy and was particularly useful where an indebted landowner wished to use the new developments as security and for a loan, where encouragement of textiles was part of a wider policy of road and bridge building and land feuing as on the Rothes estate.⁽²⁾ Robert Beatson summed up the advantages of development succinctly, "What I reckon the most advantageous for the countess is the buildings and the increase of inhabitants upon her estate which always has the effect to increase the value of her other lands."⁽³⁾ Exactly the same argument was used at Kirkland. The establishment of a large manufacture "by bringing population and wealth to the estate of Wemyss and the neighbourhood was expected to increase the value of the remainder of his property."⁽⁴⁾ In negotiating with Mark Stark in 1792 Lord Leven was to give 6 acres of land and a further 6 acres were to be reserved for feus to increase the village of Balgonie.⁽⁵⁾ Up to 1808 the Earl was only getting £28 per annum for the corn and Lint Mills at Balgonie but the feu duty on the new Spinning mill built on the site in 1808 with 5 acres of Land was £105 per annum.⁽⁶⁾ Industrial leases brought other indirect advantages; by encouraging enterprise they attracted men who were eager to turn industrial/

1. T.C. Smout, Scottish Landowners and Economic Development, p.232. Scottish Journal of Political Economy, XI, 1964.
2. S.R.O. Rothes Papers GD 204/68/5.
3. S.R.O. Rothes Papers GD 204/68/2 Beatson to Tait 10/1/1793.
4. S.R.O. CS 232/W/23/2. Wemyss v. Peter 1826.
5. S.R.O. Leven & Melville Papers. GD 26/V/219.
6. S.R.O. Leven & Melville Papers GD 26/V/295.

industrial profits into land purchase. Thus many of the developers leased farms and Walter and later John Fergus were notable amongst the purchasers of the disposed parts of the Rothes and Leven estates. Further, industrial settlements increased the rent of land around them by attracting "Manufacturers, who are induced to give high rents for the convenience of having some land to raise potatoes and to feed a cow."⁽¹⁾

Against these advantages there seemed to be few disadvantages for the Landowner. Although salmon had been killed by foul mine water seeping into the River Leven, and although Balgonie estate had been threatened by the pollution of an ironworks and the polluting effects of flax steeping in streams was well known, it was too early to anticipate the threats of long-term pollution, by the indiscriminate dumping of waste material in the River Leven. The main worry was that with large concentrations of work people in country districts there would be an increase in poaching and trespass. The Minister of Leslie wrote sternly, "Poaching in game has been carried on to a very considerable extent and the ease of sale induces poaching by many an idle weaver."⁽²⁾ However, the landowners were aware of the problem and in the feu of Balgonie Mill in 1808 it was strictly stipulated that on any complaint from the Landowner of a mill worker being/

1. R. Beatson. General View of the Agriculture of Fife, p.2.
2. N.S.A. Vol. 9. Leslie p.119. The incidence of poaching may account for the large amount of shooting materials amongst the stock in 1845. S.R.O. CS 280/11/42 of the sequestrated estate of Joseph Senior, merchant in Princes.

being found trespassing on the Balgonie woodlands or enclosures, he or she was to be sacked immediately.⁽¹⁾ It appears therefore that the landowners, in general, desperately needing to raise finance at first attempted to maximise the potential of their coal measures, but this means proving insufficient, following the fashion of the times they encouraged the increase of industrial activity on their estates.

II

Turning now to examine the early power spinning mills and the men who set them up, by 1793 there were said to be three flax spinning mills in Fife.⁽²⁾ In 1800 there were 11,⁽³⁾ and by 1828 there were some 34 flax spinning concerns in the county.⁽⁴⁾ The most significant development can be seen on the River Leven. In 1794 there were said to be 7 bleachfields, 2 very large cotton mills, 11 corn mills and 1 flour mill, 3 waulk mills, 7 lint mills/

1. S.R.O. Leven and Melville Papers GD 26/V/716/2.
2. J. Thomson, General view of the agriculture of Fife, p.306. As the earliest mills were originally intended for both cotton and flax a particular mill or millowner might be included under flax by one commentator and under cotton by another. Thus in George Miller's Seq. in March 1797-CS 280/seq. M/1/12. There is an entry "Joseph Russell flax dresser Kirkcaldy" and another "Elizabeth Graham, cotton spinner with J.R.Kirkcaldy". In a different process of the same year Wm. Greig v. Alex. Robertson 1799 CS 236 G.12/1 there is a reference to Joseph Russell, flax spinner in Kinghorn.
3. Ibid. p.306. Unfortunately, Thomson does not say where the mills were.
4. Piggot's Directory, 1828. As businesses were frequently changing hands, new plant being constructed and other firms going out of business, Piggot's list is not entirely accurate. He includes several firms whose estates had been sequestrated and makes double entries where a firm eg. Charles Arthur and Co. had an office in Kirkcaldy and works in Kinghorn. He also underestimates the number of firms in Dunfermline.

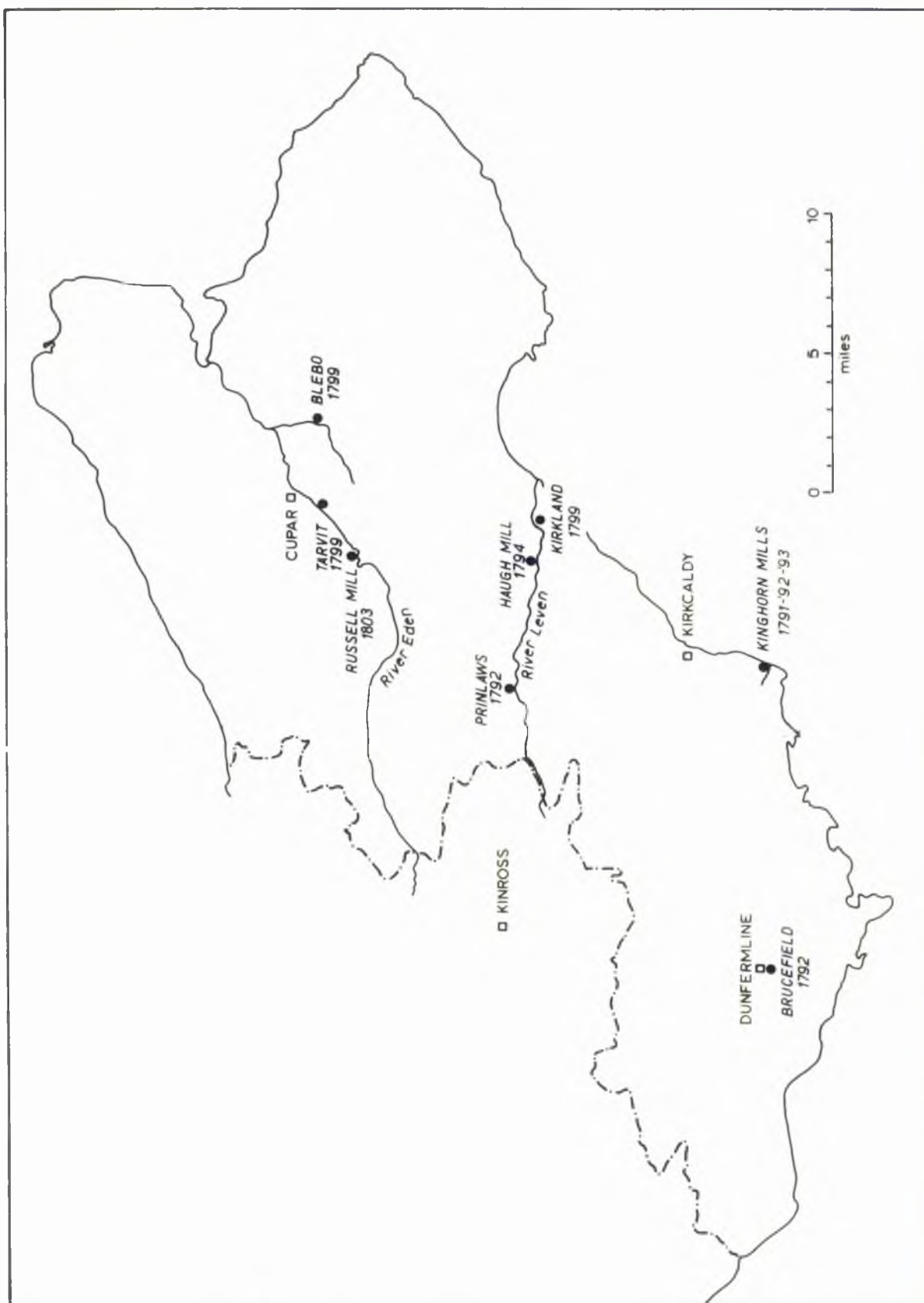
Mills and 4 coal engines.⁽¹⁾ By 1794 the spinning mills were in fact spinning flax. By 1828 when the River Leven was surveyed by George Moon of Russell Mill there were 25 dams on the river driving wheels at 32 installations, twelve of which were spinning mills, all but one being for flax.⁽²⁾ Unfortunately, none of the records of the earliest firms have survived and it is, therefore, impossible to build up a picture of the businesses from their own ledgers; However, some account of the first Fife flax spinning mills must be given and conclusions drawn from the evidence. The 11 mills built before 1800 were as follows -

- 1789 : Kirkland Mill
- 1791 : Kinghorn, Midmill
- 1792 : Brucefield Mill
- : Kinghorn, Lower Mill
- : Prinlaws Mill
- 1793 : Abbotshall Mill. (possibly horse powered)
- 1793 : Kinghorn, Upper Mill, later called St. Leonards Mill.
- 1794 : Haugh Mill
- 1798 : Largo Mill (a small mill, never a significant site)
- 1799 : Tarvit Mill
- : Blebo Mill (3)

In/

1. R. Beaton, General view of the Agriculture of Fife, p.10.
2. River Leven Trustees, Sederunt Book of the River Leven Trustees 27/7/1827 to 5/12/1829 pp.62-64. I am indebted to the Trustees for allowing me to consult their minutes and to the Clerk, James Grosset for use of his offices at Leven.
3. It is not certain that William Greig and Son, merchants, Kirkcaldy were spinners at Abbotshall. In a case in 1799 (W. Greig & Son, Kirkcaldy v Alexander Robertson, flax dresser, Pathhead, S.R.O. CS 236/G/12/1), they are described as "practically and professionally engaged in every branch of the flax manufacture" They are also described as extensive hecklers and in 1795, William Greig, manufacturer, Kirkcaldy was given a £50 grant by the B.O.T. for his yarn bleachfield at Abbotshall (NG 1/1/29. 9/12/1795).

Figure 2



In the seventeen eighties various Fife petitions to the Board of Trustees for grants for spinning Jennies were refused because "The spinning of cotton now goes on with such spirit as not to require any public aid in order to promote it."⁽¹⁾ As the amount of cotton used in the Fife Trade increased, the demand for cotton yarn naturally grew and plans were made for building cotton mills. The first Fife mill was at Kirkland on the River Leven on the estate of William Wemyss of Wemyss. A tack for 99 years from Martinmas 1789 was agreed on between Wemyss and Archibald Neilson and Alexander Greenhill, both merchants in Dundee. The 30 acre site was adjacent to the Kirkland coal workings abandoned in 1785, and was to be rented at £67:10s. per annum. Large scale operations were planned from the outset and the projectors were allowed to take stone from the Wemyss estate for mill and dam buildings on payment for surface damage. They were shortly to have Methil Mill and dam on the expiry of the lease.⁽²⁾ The developers chose the site because of the adequacy of the water supply (here the Leven had the extra water from the River Ore). They would also benefit from the use of the Kirkland coal engine and the Dams, leads and tails out for its use.⁽³⁾

Unfortunately, the commissioning of the Mill was delayed by a dispute between the landowners, Wemyss and Christie of Durie, the latter claiming/

1. S.R.O. B.O.T. NG 1/3/14. 3/1/1785.
2. S.R.O. CS 232 W/23/2 Wemyss v Peter 1826.
3. Ibid.

claiming that the abandoning of the Kirkland mine was seriously polluting the fishings on the river and he therefore wanted Wemyss to "remove and carry off certain noxious and corrupted water which issued from his ('Wemyss') coal pits to the great detriment and almost total destruction of the said fishing."⁽¹⁾ Christie further sought an interdict against the developers increasing the height of the Kirkland dam dyke because he felt this preempted the use of the river from the Waulkmill and Bleachfield on his estate.⁽²⁾ Litigation in these cases cost the company over £1,000 before production even began. Thus from the earliest developments disputes would arise between landowners and millowners over the use of the river.

The original purpose of the site is obscure. In the case of Christie v. Wemyss 1789 the intention was to spin cotton or wool.⁽³⁾ In a Petition to the Board of Trustees (1790) it was declared that machinery had been installed for spinning linen and wool⁽⁴⁾ and in the case of Wemyss v. Peter, 1826, the declared objects were cotton and flax⁽⁵⁾, illustrating the entrepreneurs' flexibility and the uncertainty of spinning flax by machinery in the early years. In the outcome the firm was spinning flax by 1790.⁽⁶⁾ In their appeal to the Board of Trustees for a grant for developing their own spinning system, independent/

1. S.R.O. CS 229 C/4/66 Christie v. Wemyss
2. S.R.O. CS 271 / 43604 Bill of Suspension and interdict Christie v. Wemyss 1789.
3. Ibid.
4. S.R.O. B.O.T. NG 1/1/27. 2/2/1790.
5. S.R.O. CS 232 W/23/2 Wemyss v. Peter, 1826.
6. S.R.O. CS 271/43604

independent of Forthhouse and Kendrew's Darlington patent, the company claimed to have expended over £6,000 including the cost of models and experiments.⁽¹⁾ Although they were not given a grant, because they wanted to keep their developments secret for as long as they could - which would not be far long with a large labour force - the Board agreed that as soon as the machinery was completed and got going the company would be rewarded "to testify their sense of the company's intent and public spirit."⁽²⁾ In the Board's Letter, the partners of the Company are listed as the original partners, Neilson and Greenhill as well as a Mr. Aislable and the manager Harte Stevenson. The O.S.A. says that the firm of Aislable Neilson and Co. was conducted by "some gentlemen from London and Dundee."⁽³⁾ Two points should be noticed - one the capital came from outside Fife, two, there was a managing partner. It would seem that Aislable was a partner of the London soap manufacturers Rawson Aislable and Co. who had contacts in Fife.⁽⁴⁾ In 1799 one John Blair Miller was a partner⁽⁵⁾. But the original partners may have left by then, particularly Neilson, who had built a steam-power mill in Dundee or, following a destructive fire in 1799, may have been unable to raise sufficient funds to continue the works, for in 1800 James Heggie, merchant, Kirkcaldy, associated with Haugh Mill, was considering/

1. S.R.O. B.O.T. NG 1/1/27 2/2/1790.
2. S.R.O. B.O.T. NG 1/3/16 12/2/1791
3. O.S.A. Wemyss, vol XVI. p.521.
4. N.L.S. Prinlaws Papers, Acc No. 3764. Rawson Aislable and Co. to John Fergus and Sons 24/12/1795.
5. S.R.O. CS 236 G/12/1 Grdg v. Robertson 1799.

considering the purchase of the works, with an Edinburgh lawyer William Berry. Heggie, however, preferred to build a steam mill in Kirkcaldy the high cost being offset by the availability of labour.⁽¹⁾ In the event, John and James Peter, again Merchants in Dundee became partners in the old Company and assumed various partners over the years.⁽²⁾

In the early years of the Kirkland works the company ran into some trouble with the local yarn inspectors but gradually began to produce high-quality goods. In 1794 the Company began to make cloth and/

1. N.L.S. Mss 5319 f. 131. James Heggie to William Berry 7/12/1800.

2. S.R.O. CS 232W/23/2 Wemyss v. Peter 1826.

The Kirkland partnerships of 1808 and 1814 are interesting in that they reveal the blending of outside merchant capital and management expertise. The details are given in S.R.O. CS 239/D/24/1: John Drummond v. Neilson, 1817.

Contract of Copartnery 1st, 3rd and 19th October 1808.

The aim of the business was to act as linen spinners and manufacturers at Kirkland and commission agents and general merchants in Dundee.

John Baxter of Idvies

James Peter

John Drummond

John Peter

Charles Turner of Limehouse, London, a rope spinner

Contract of Copartnery 15/8/1814 Capital of £32,000

John Baxter of Idvies, Merchant, Dundee

4/32th

James Peter, flax spinner, Kirkland

9/32th

John Peter, Merchant in Dundee

7/32th

James Aytoun, flax spinner and merchant, Haughmill

2/32th

John Drummond, Kirkland

8/32th

John Coalier, merchant, Dundee

2/32th

The business in London of commission agents, Factors, General Agents and Insurance Brokers was to be carried on under the name of James Aytoun and Co. John Peter was to act as manager in Dundee, James Peter and John Drummond at Kirkland. The London venture was abandoned after a short time and in 1815 Drummond retired from management at Kirkland and was replaced by Aytoun.

and was employing about 300 workers at the mill as well as many outworkers.⁽¹⁾ In 1806 Ticks were being made at Kirkland.⁽²⁾ In 1809, following the extension of the mill, Sailcloth and Damask began to be manufactured and in 1810, Kirkland became the first spinning mill in Scotland lit by gas, the apparatus being produced by Boulton and Watt. By 1813, the General Surveyor to the Trustees was describing Kirkland cloth as the best he had seen in Scotland,⁽³⁾ and in 1817 the Company surprised the Trustees by complaining that they were unable to obtain a bounty on their sales to Northern Europe. The framers of the legislation had never expected Scottish firms to be able to beat the Germans in their home market.⁽⁴⁾ In the next decade the complex was perhaps at its height; by 1832 it was employing 500 workers, about the same figure as in 1854.⁽⁵⁾ The whole works was still, in the thirties, driven by a great water wheel 19½ feet in diameter and 16 ft. broad, generating 80 horse power.⁽⁶⁾ By 1837 the firm was being seized by the British Linen Company in security for £15,000.

The development of flax spinning at Kinghorn is associated particularly with James Aytoun, son of William Aytoun, W.S. who was according to Warden, "in very truth the father of the flax spinning trade."⁽⁷⁾ In a long life from 1774 to 1864 he learnt the spinning trade/

1. O.S.A. Wemyss p. 521.
2. S.R.O. B.O.T. NG 1/3/18 10/11/1801.
3. S.R.O. B.O.T. NG 1/1/33 10/2/1813.
4. S.R.O. B.O.T. NG 1/3/21 6/1/1817.
5. Chambers Gazetteer, p.723; B.P.P. 1854/5 vol XV p.399, Factory Inspector's Report 1854.
6. Ibid B.P.P. 1833 XX p.117.
7. Warden, The Linen Trade, p.510.

trade in Darlington and was associated with the works at Kinghorn from 1793, Haugh Mill, Kirkland and at Abbotshall where he was later a pioneer in the spinning of jute. Although few documents of his life survive he was typical of the Fife entrepreneur, dogged by technical difficulties, a man of managerial ability but lack of capital following his sequestration in 1803. He was connected with prominent Edinburgh lawyers and his family had marriage connections with other Fife spinners. Aytoun set up 4 flax-spinning frames of 36 spindles each, paying one pound per spindle to Porthouse and Kendrew. However, it appears that the original developments in Kinghorn were for cotton spinning for in February 1792 Walter Fergus successfully thwarted one Henry Hallows who wished to stop Fergus from building a mill below Hallows' cotton mill, because he feared that this would put the higher mill in backwater.⁽¹⁾

Hallows had constructed in 1791, a mill on the site of a windmill, using the water from the Kinghorn Loch to power a 16 ft. diameter overshot wheel in a mill of 4 floors with a garret, but the water supply was such that it only generated 3 horse-power. The building of Fergus' mill on land bought in late 1791 and the solution to Fergus and Hallows' dispute by combining to build a third mill, intended in 1793 to be a jenny-spinning cotton mill, on the site of a brewery/

1. S.R.O. Petition for W.Fergus. 1792.

brewery, put such a demand on the water supply that steam power had to be resorted to.⁽¹⁾ The depression of 1793 curtailed any further developments and the refusal by the government to extend Porthouse and Kendrew's patent helped to focus attention on flax production. Thus when Hallows, whom the title deeds described as "sometime cotton manufacturer at Inohdarnie then Kinghorn"⁽²⁾ died in 1795 Aytoun the surviving partner offered the mill on a 12 year lease and advertised the cotton machinery which included 21 spinning jennies "at very low prices". Significantly, the articles of roup were in the hands of the Edinburgh Lawyer and Fife landowner Roger Aytoun W.S.⁽³⁾ It would appear that Aytoun was unable to let the mill for he formed a partnership with his brother which failed in 1803, Warden blaming the failure on the second hand coalworking engine which the brothers had attempted to adapt.⁽⁴⁾ Lack of capital to overcome the early technical problems may have been an important contributory factor, coupled with speculation in foreign yarns.⁽⁵⁾

Warden believed that the other mills were more successful because they installed Boulton and Watt engines, though here again Walter Fergus' superior capital may have been the decisive factor, aided/

1. S.R.O. Principal Register of Sasines, burgh of Kinghorn B 39/1/4 p.24.
2. S.R.O. B/39/1/2/42.
3. Edinburgh Advertiser, 30/1/1795.
4. Warden, op.cit. p.510.
5. Edinburgh Advertiser, 8/7/1803. Although the sequestration of James & Patrick Aytoun is recorded in the Minutes of the Court of Session (S.R.O. CS 17), there is no trace of the process in the court of Session records.

aided by that of his partner, William Orrook (the families being also allied in marriage). The Lower Mill and Mid Mill continued to be run by Walter Fergus and Co. till 1816, when they were sold at the low price of £1,750 to a partnership composed of William Swan, agent to the Glasgow Bank at Kirkcaldy, (the bank of which Walter Fergus was a founding and leading partner), Charles Arthur, a partner of John Heggie and Co, Dyers, Links (Kirkcaldy) and Ninian Lockhart, a rising manufacturer in the Linktown.⁽¹⁾ The Upper Mill at Kinghorn was run by the firm of Joseph Russell and Co, though ownership appears again to have been in the hands of Walter Fergus to whom Russell was deeply in debt; for an entry, in Fergus day' book reading, "Having sometime ago sold the Upper Mill at Kinghorn lately belonging to and occupied by Joseph Russell and Co. to Charles Arthur, William Swan and John Fergus (Walter's son) carrying on business under the firm of Charles Arthur and Co, debit them viz."....., to a total of £9,127, is followed by an entry headed "Desperate Debts". "All the accounts connected with Joseph Russell and John Russell his son, mill spinners in Kinghorn, both deceased £2,859.12. 3d."⁽²⁾ Looking more closely at these accounts two important factors are revealed. Firstly, while Fergus was withdrawing from trade in Kinghorn, he was becoming involved in the financing of James/

1. Kirkcaldy Technical College, John Fergus & Son, Day Book 16/5/1816; 19/11/1819. S.R.O. Sasines, Fife, Persons 1781-1820 No.8229.
2. John Fergus, Day Book, op.cit. 20/1/1824 and 25/11/1824.

James Bissett at Prinlaws from 1816 ⁽¹⁾ which was to be bought by John Fergus in 1827. Secondly, he illustrates the point that in an era when bank advances were hard to come by, it was useful to be a banker, ~~for~~ On a bill of £3,804;2;8d for new machinery at Kinghorn, Fergus paid interest over several years of £176;2;1d on advances made by the Glasgow bank for the purchase of new machinery. ⁽²⁾

Little is known about the early developments at Brucefield near Dunfermline and at Prinlaws by Leslie. Brucefield was the site of a bleachfield, for in 1769 A. Skirving, bleacher in Brucefield was made a freeman of the weavers. ⁽³⁾ But, by 1771, the land was in the hands of Mark Stark who had come to Dunfermline to continue the business of Campbell, the British Linen Company's agent in the town, for in that year £60 was granted by the B.O.T. "To Mark Stark manufacturer, Dunfermline for part expense of a beetling engine and rubbing boards" ⁽⁴⁾ Stark was obviously anxious to build a spinning mill, for he was one of those who approached the Earl of Leven in 1792 and had already established himself on the Leven from 1784 with his field at Leven (The building of the Kirkland works prevented any major development on that site). His approaches proving unsuccessful, he built the second steam powered spinning mill in the county/

1. Ibid. Entry 7/7/1821 Debit Prinlaws to Jas. Bisset for the interest of £60.00 for four years preceeding 11/11/1820, £1,200 and for the interests on the payments of that sum £103.13s.
2. Ibid 20/1/1824
3. D. Thompson. The Weavers Craft, p.239.
4. S.R.O. B.O.T. NG 1/42/1 p.38, Premiums for Bleaching and fitting up of Bleachfields 1729-1772.

county at his Brucefield Works, though the conduct of the Works seems to have been left largely to his manager Alexander Struthers.⁽¹⁾

When Stark began to concentrate on another mill at Kirkhill, Laswade, Struthers appears to have taken over at Brucefield. By 1814 the mill was employing 179 employees and was producing 2 to 4 lb. yarn for table linen, 4, 5 and 6 lb. for sheeting, 8 lb. for Osnaburg and 15 and 16 lb. for Osnaburg.⁽²⁾ This indicates clearly that as yet Fife machinery was unable to spin the fine yarn needed for the growing Danask trade of Dunfermline. This impression is backed up by the number of manufacturers of coarse cloth who were heavily indebted to Alexander Struthers.⁽³⁾ It also helped to explain the slow development of the spinning trade in the Dunfermline area and the consequent dependence on imported yarns.

The site at Prinlaws was developed by John Melville, who has many of the common features of the early entrepreneurs. Like Neilson at Kirkland he was a stampmaster and like Stark at Brucefield he was exploiting a site which he had first leased in the 1780s to extend his bleaching activities. With Stark he had considered building a Mill at Balgonie. The developments at Prinlaws were on a large scale which impressed Beatson, the Rothas factor.

In/

1. S.R.O. CS 236 G/12/1. Greig v. Robertson 1799.
2. Henderson, *Annals of Dunfermline*, page 528
Ferne, *History of Dunfermline* p. 124.
3. S.R.O. CS 251/3432, Process in the Multiple poinding of Godsir and Adamson, manufacturers, Cupar 1813.
S.R.O. CS 96/697. Process in Sequestration. Thomas Chalmers and Co. Auchtermuchty. 1819.

In a letter to Tait in Edinburgh he wrote, "I met with Mr. Melville last Saturday, at his works, and went through them, he is now begun to spin cotton and is to begin soon to spin yarn. It is a very great work indeed for this country."⁽¹⁾ As at Kirkland, Prinlaws was intended to be an integrated works. On the 78 acre site Melville built a bleaching house with bleaching ground, a spinning mill, a flax, scutching and barley mill as well as housing for twenty families. The terms he offered weavers who would feu building sites were lavish, thought Beatson "You will have noticed Mr. Nevill's (the writer of the letter obviously misread Nevill for Melville) flaxing advertisement for feuing at his farm of Prinlaws, he says no feuduty will be charged for 7 years and you see the encouragement that tradesmen are to meet with by taking their work off their hands on the spott."⁽²⁾ The integration of processes, the emphasis on family work and the incentives needed to attract workers can be seen from an advertisement by Melville, inserted in the "Edinburgh Advertiser" in 1792:

"Wanted immediately a person to superintend an extensive yarn bleachfield, and who has been accustomed to the management of workpeople; also a person to superintend a heckling or flaxdressing shop /

1. S.R.O. Rothes Papers, GD 204/68/2, Beatson to Tait 27/9/1792.

2. op. cit.

5/12/1792.

shop. If they have families they can have constant employ, at a flax spinning mill situated on the spot.....Grounds for weavers to be leased for building at the pleasing and healthful village of Prinlaws on the lowest terms, and they and their families will find constant employment and good wages, and their children receive books and education gratis."⁽¹⁾

It seems, however, that Melville had embarked on a scheme for which he had quite insufficient capital, for, when his estate was offered for sale in 1805 the Mill was said to ~~had~~ 28 spinning frames but it could hold 84.⁽²⁾

Unfortunately for history, Melville did not seek sequestration but put his affairs in the hands of trustees preventing us from knowing much about his activities. The property was divided into 3 lots: Lot one, comprising the Spinning Mill and bleachfield was sold to James Biset connected with Haughmill, under a burden of £5,500 to Melville's trustees who included Walter Fergus.⁽³⁾

It was this ground which was seized by Fergus in 1816, the Mills being disposed to him in 1827.⁽⁴⁾

Lot two, comprising the Lint mill and a small group of houses was purchased for £2,000 by Robert Dick, a merchant in Coldstream on behalf of Thomas Wright who had been managing partner of Dick's Roslyn Spinning Mill near Edinburgh from 1803 to 1806. Wright/

1. Edinburgh Advertiser, 23/2/1798.

2. Ibid. 27/9/1805.

3. S.R.O. Sasines, Fife, 1781-1820, No.7886.

4. S.R.O. Sasines, Fife, Places 1821-1830, Nos. 3621; 3623.

Wright proceeded to convert the ~~Lint~~ mill to a spinning mill, put in machinery, built a bleaching house at a cost of £846 and installed machinery: £440 worth in the bleachworks and £338 in the spinning mill but he was already in debt to Dick and, unable to meet his bills, was forced to seek sequestration.⁽¹⁾

After some time Wright's property was purchased by John Ferguson, a banker in Cupar, under a bond of £2,350⁽²⁾, a type of purchase typical at the time. The mill passed to Alexander Robertson, senior, flax dresser in Pathhead with a loan of £1,000 from the wealthy Kirkcaldy merchant, Robert Philp.⁽³⁾ But it is evident that, here again, the purchaser had insufficient capital, for the property was bonded by Robertson to James Hendry a flax spinner in Linktown for a total of £5,700 between 1816 and 1820 and, although Robertson at his sequestration in 1826 was able to dispose the Mills to Hendry for £8,322, the sum net of capital and interest was only £2,325.⁽⁴⁾ The property was finally sold to John Ferguson in 1839.⁽⁵⁾

Lot 3 of Prinlaws, two acres of land, was bought by Walter Ferguson and consolidated into the property after 1827. His son John completed/

1. S.R.O. CS 96/1057. Thomas Wright's sequestration 1807.
2. S.R.O. Sasines, Fife, Places 1781-1820 No. 8700 18/5/1810.
3. " " " " No. 9217.
4. S.R.O. " " " 1821-1830 No. 3591.
5. " " " " 1831-1840 No. 4433.

completed the process by buying 5 acres of Mildeans and its Mill from the Earl of Rothes in 1832. Study of title deeds reveals the steady increase of Fergus involvement at Prinlaws from the first interest shown in the Rothes policies in 1792, through trusteeship and by possession of security over properties, which gradually fell to the firm in periods of depression, to the concentration of effort at Prinlaws and abandoning of involvement at Kinghorn and in manufacturing at Kirkcaldy. Further study will show that acquisition of small units in favourable market situations was the method chosen by the large Kirkcaldy firm of Swan Brothers, already concerned in the partnership of Charles Arthur at Kinghorn. (1)

The last of the important early Mills was at Haugh Mill, near Windygates, on the Balcurnie estate. This site is particularly connected with Walter Biggar, junior manufacturer near Edinburgh, again a man of repute, bringing development to Fife. Like Richard Neilson he had given evidence to the Parliamentary Committee on chequered and striped linens in 1771. In 1792 Alexander Pearson, dyer at Haugh Waulkmill, died and the property was seized by his son and grandson. They disposed it to George Millar, a Kirkcaldy merchant who immediately disposed the property to/

1. S.R.O. Sasines, places Fife 1821 to 1830 No. 485.

to Walter Biggar, junior, of Roslin Bleachfield.⁽¹⁾ It seems clear that Millar could not develop the site himself, for when he joined the partnership set up by Biggar in 1794, two thirds of Millar's share was advanced by James Heggie, merchant in Kirkcaldy.⁽²⁾ The example of Haugh Mill is interesting in that details of the partnership and of the changes in it survive. A contract of copartnery was drawn up on the 7th of February 1794 with the purpose of manufacturing flax or lint yarn and also for spinning and bleaching cotton yarn. Walter Biggar was to receive two shares in return for the sale of the subjects at Haughmill, valued at £600 and the other four partners were to pay in £300 each towards conversion expenses and for buying the necessary machinery, making a capital of £1,800.- More could be contributed if a majority was in favour, but as long as the shares remained the same, the share of profit and loss was to remain the same. The Profit and Loss Account was to be balanced twice yearly. The partners were James and George Heggie, Biggar, Millar and/

1. S.R.O. RS 32/196 p. 278.
2. S.R.O. CS 230 Sequestration M/1/12, George Millar's Sequestration 1791
 Haugh mill exhibits many similarities to other developments on the River Leven, as revealed in the Wardlaw Ramsay papers (N.R.A. 0227). In 1792 George Heggie offered to feu the Land for a spinning mill. (734) In 1798 the offerer was John Crombie, then working at the Kirkland Works who in the following year went to Blebo mill. Again, as elsewhere, the owners of the land were concerned about their coal, even if none existed. In December 1798 John Balfour wrote to George Ramsay (833) "Should any coal be found on Balcurnie Land, the giving away the water of Haughmill would be of very bad consequence, but this I fear this is little probability, as all the seams on Wemyss ground crop out for to the southward of Leven Water". I am indebted to Mrs. E. Hanbury Tenison for allowing me to study the Wardlaw Ramsay papers relating to Haugh mill.

and Robert Bisset from East Wemyss who was to be manager; the firm was to be known as Robert Bisset and Co, and to last for seven years.⁽¹⁾

Fortunately, an insurance valuation of Haugh Mill has survived which puts a value on the business in line with the paid up capital.

At a valuation in 1799 the works were valued thus:-

Mill	£600	
Millwright's work	350	
Clockmaker's work	950	
Stock	500	
Heckling house	50	
Stock in warehouse etc.	<u>500</u>	(2)
	£2,950	

If the clockmaker's work is removed then the valuation is similar to the theoretical value of the business, bearing in mind the high value put on "Stock in Warehouse". It is salutary, however, to consider that only five years later (1804) John Marshall's mills at Leeds were valued at £74,000.⁽³⁾

Following Millar's sequestration and Bisset's removal to Prinlaws/

1. Ibid. Significantly, although Millar's share in the company rose, at his bankruptcy in 1799 he was only able to pay a dividend of 2/9d in the pound on debts totalling as little as £1,784.
2. Quoted in J. Tann, *The Development of the Factory*, p.12.
3. J. Rimmer, *Marshalls of Leeds*, p.47.

Prinlaws their shares passed to George Heggie in 1807 and in 1814 Biggar's Trustees sold his share to Heggie. In the following year the Mill, which had been managed by James Aytoun, now described as merchant in London, was disposed to him and by him to the superior, Robert Wardlaw of Balcourvie.⁽¹⁾ Thereafter, it appears to have been worked on hire by Alexander Robertson of Prinlaws Mills, who failed in 1826.⁽²⁾ Robertson remained at Prinlaws till 1832 when the Mill was let by the new superior, Wardlaw Ramsay, on a 27 year lease to George Wilson, formerly at Largo Mills.⁽³⁾ This is the only case found in Fife where the landowner played a direct part in the provision of capital and charged a high rent over a comparatively short lease. In some small concerns the lease was merely the development of the farm tack as at Kirkforthar Mill and Bleachfield where in Scott and Taylor's 23 year lease from 1822 we find "All and Whole the Lint mill of Kirkforthar (another conversion) and waterfall with the lands belonging thereto and houses and other buildings thereon lying in the parish of Markinch, yearly rent £42.... the tenants being bound within the first year of the lease to build a spinning mill which they are bound to leave to the Landlord at the end of the tack without compensation."⁽⁴⁾ At the other end of the scale the 999-year lease/

1. S.R.O. General Register of Sasines 1006.200 17/5/1814.
2. S.R.O. CS 44/Aug. 1826, Alexander Robertson's sequestration.
3. S.R.O. CS 46/98/March 1840, George Wilson's sequestration
4. S.R.O. CS 96/791. Scott and Taylor's sequestration 5/1839.

lease from Charles Maitland, Younger of Rankailour to Andrew Birrell and Co. was equally untypical.⁽¹⁾ The policy, established in 1784 when John Melville and Sons were given a 57 year lease at Prirlaws, set the trend of long leases of up to 99 years which was maintained for the early developments in mill spinning.⁽²⁾

The pattern of industrial development set in the early years continued in the subsequent phases of millbuilding. The turn of the century saw the building of mills on the Eden and the Ceres burn and, in 1805 and 1808, there were developments on the Leven. In scale and nature of entrepreneur they show similar characteristics to the early mills and will be discussed in general terms in considering the industry as a whole. The developments in Kirkcaldy and Dunfermline which are associated with the secondary phase of economic growth in the era of steam power in purpose-built factories will be considered in a later chapter. The men behind the early mills will now be more closely examined.

III.

In general, the first important millowners in Fife belonged to families who were long established in the linen trade and had played an important role in its development. Mark Stark, John Fergus and Richard Neilson were amongst those invited by the B.O.T. to come to Edinburgh to discuss the setting up of a Linen Hall.⁽³⁾ Richard Neilson/

1. S.R.O. Sasines, Fife, Places 1781-1820, 10139.
2. S.R.O. B.O.T. NG 1/1/23 15/12/1784.
3. S.R.O. B.O.T. NG 1/1/18. 20/1/1766.

Neilson and Walter Biggar were principal witnesses before the Parliamentary Committee of 1770 on chequed and striped linen and John Melville, Walter Fergus and Alexander Neilson were all stampmasters or recipients of private stamps. (No doubt Stark would have had a stamp if it had been the custom to stamp Dunfermline goods.)⁽¹⁾

Whilst weavers in the boom period, at the end of the eighteenth century, might like to become manufacturers,⁽²⁾ it was a large step from here to becoming an independent millowner. An exception was John Kinnell, weaver, then manufacturer in Dunfermline, but this was not till the eighteenth twenties.⁽³⁾

Some small farmers, who had mills on their land were able to convert these for flax spinning but there are no examples of small farmers becoming large-scale millowners as in the case of Fielden or the Peels in England. Scott or Scott and Taylor, Freuchie was the son and grandson of wrights in Freuchie and joined with Taylor to convert the mill on his small landholding⁽⁴⁾; whilst at Balmule/

1. (1) Walter Biggar, manufacturer near Edinburgh developed Haugh Mill
 - (2) John Fergus was established at Kirkcaldy by 1750. His son pioneered
 - (3) developments at Kinghorn and began the family connection with Prinlaws.
 - (4) John Melville, manufacturer and stampmaster at Dysart bleached and later spun at Prinlaws.
 - (5) Richard Neilson settled in Dundee in 1759 to employ Osnaburg weavers on contract to the British Linen Company.
 - (6) Mark Stark, who started the Mill at Brucefield had been manufacturing there for thirty years.
2. O.S.A. Kirkcaldy, vol XVIII. p.32.
 3. S.R.O. Sasines Persons File, 1831-40. No. 2959.
 4. S.R.O. CS 96/791, Scott & Taylor's sequestration 1839.

Balmule, near Dunfermline, the land was feued by Robert Mudie in 1734. His son, a writer in Edinburgh, feued the walkmill lands of Balmule in 1797, which were converted into a spinning mill of 784 spindles by his son, another Robert. (1)

More important is the millowner's desire to rent or own land, either in association with his mill or elsewhere in an attempt to improve his standing in the county and give him the stability and name which came with landownership.

Most prominent of the industrialist-landowners were the Fergus family who purchased land in and about Kirkcaldy from the indebted Rothes and Leven and Melville families. (2) The interest in landownership may have been strengthened by the rural setting of many of the Mills. This was certainly a reason for the strong paternalism of the Fife Millowners. Here there was no strong trend towards the urbanisation of the spinning trade, thus paternalist attitudes remained throughout. In this, Fife industry differed from cotton, where, by 1800, the typical unit of production was the steam powered, urban, mule factory. In Fife, rural waterpowered mills/

1. S.R.O. CS 96/2066. Robert Mudie's sequestration 1832.
2. Landownership was important in giving the industrialist the cachet of approval in county circles by allowing him to attach the name of his property to his family name. Contemporaries were careful to include the property name when writing to or of an industrial Landowner such as Peter of Balrymounth or Stocks of Apsden. John Fergus would not have been acceptable as the County's M.P. in 1847, if the family had not owned Strathore estate since the 1780s. The question of Landownership will be discussed more fully in dealing with the Millowner's life style.

mills continued to predominate.⁽¹⁾

A striking feature of the early developments is the extent to which the mills relied on outside capital and enterprise, the Neilsons coming from Dundee and Biggar from near Edinburgh. Lack of capital seems to have been a general feature of the Fife economy, for another large development of the period, the Leven Iron Works, was financed completely by outside entrepreneurs.⁽²⁾ Only at Kirkcaldy, of which it was said in 1782, "A brisk trade is carried on in the place and many of the inhabitants are possessed of considerable property"⁽³⁾ was there any significant capital available for investment, though even John Melville, the developer of Prinlaws, was constantly short of capital, his estate being put in the hands of trustees the year after he started spinning there⁽⁴⁾. Of course there was some local finance available. Dunfermline was interested in the Leven valley, for in 1805, particulars of the sale of Prinlaws were in the hands of James Spence/

1. Even when steam powered mills were built in Kirkcaldy and Dunfermline, lack of water continued to hamper development. At Kirkcaldy bore holes to old mine workings dried up and at Dunfermline the hard water furred up piping. The introduction of mains supply in both towns was a signal for economic development.
2. S.R.O. Leven and Melville papers GD 26/V 374. The partners of the Leven Iron Works were Surtees, a London iron merchant, 4 partners of the Team Iron Works near Newcastle and 4 Edinburgh merchants.
3. Douglas, the East Coast of Scotland, p.12.
4. S.R.O. Sasines, Fife, 1781-1820 No. 3629.

Spence, manufacturer in Dunfermline.⁽¹⁾ There was in Dunfermline backing for Gavin Inglis, the bleacher at Strathendry, and Mark Stark developed the Leven Bleachfield. At Cupar, the Yool family was connected with industrial development at Tarvit Mill and of the Ceres burn, whilst Russell Mill was set up under the firm of Anderson Birrell and Co. by Cupar manufacturers William Geddes, William Anderson and David Birrell. Nevertheless, a chronic lack of capital was an important reason for the instability in the Fife Linen trade.

Another important aspect of the early entrepreneurs is their interconnection, both by marriage and by enterprise and the role of bankers and lawyers in cementing these connections. At Kinghorn, Walter Fergus was connected to his partner, Errook, Aytoun became related to the Peters, who were in turn related to the Drummonds at Balgonie Mill. Walter Biggar married into the Heggie family the year before he joined them in a partnership at Haughmill.⁽²⁾

As so few business records of the period survive, there is no easy way of finding out how businessmen divided their resources. There is every indication that where funds were available they liked to spread their liabilities. Thus, we have Robert Kirk, senior, sometime tobacconist in Kirkcaldy, afterwards yarn spinner and merchant at Rothes Mills and cattle dealer and grain merchant at Easter Finglassie.⁽³⁾ It/

1. "Edinburgh Advertiser", 27/9/1805.

2. S.R.O. CS 232 B.20/65. Biggar v. Heggie

3. S.R.O. CS 318/17/177. Robert Kirk's Sequestration Sederunt Book No. 2.

It appears from his sederunt book in sequestration that he started making snuff at Sparrow Mill, on the Rothes Estate, in 1805, and was agent for the Commercial Bank in Kirkcaldy, in the Twenties, when he also purchased Leslie Lint Mill for conversion to flax spinning. He was, besides, a property owner in Kirkcaldy possessing the popular Bendelows Inn.⁽¹⁾ The same was true of successful men such as Walter Fergus with his varied interests in textiles and banking.

To illustrate the importance of connection and the influence of lawyers and bankers, there is the case of Gavin Inglis, whom the Board of Trustees had consulted on the retting of flax. He was a manufacturer in Markinch, but obviously of wider talents, for James Kyd, Lord Leven's factor, described him as, "an active, clever young man and a good chemist". On the strength of this recommendation he was made manager of the Leven Iron Works following the sacking of David Mushet in 1803.⁽²⁾ A year earlier, he had laid out Walkerton Haugh and converted Strathendry Waulkmill into a bleachfield.⁽³⁾ In 1805 Gavin Inglis and John Ferguson, the Cupar banker, and Provost, were offering to lease Balgonie Colliery and Kyd wrote to Lord Leven, "you know the people are sufficient for the rent offered."⁽⁴⁾ Inglis, however, seems to have been short of capital, for, in 1811, an advance of £2,500 was made to Inglis, of the firm of Gavin and Robert Inglis, manufacturers, Markinch, by/

1. Ibid.

2. S.R.O. Leven and Melville Papers, GD 26/V/728 Kyd to Lord Leven 26/11/1803

3. S.R.O. Sasines Fife Places. 1781-1820. 8154.

4. S.R.O. Leven and Melville Papers, GD 26/V/716/2 19/1/1805.

by A. Christie, banker, Cupar, John Ferguson, merchant and banker Cupar, and James Kyd, writer Cupar.⁽¹⁾ By 1816 the trustees for Inglis' creditors were seized in the Bleachfield⁽²⁾ and, in 1827, the field was disposed by his trustees, Robert and James Kerr, bank agents, then manufacturers, in Dunfermline.⁽³⁾

The lawyers and bankers, by their close connection with trade, especially as trustees on estates and as channellers of finance from individuals to millowners against the security of their mills, had their fingers on the economic pulse and were able to invest in a widespread of industry as the opportunity arose. Thus James Kyd, writer in Cupar was factor to Lord Leven from 1803-1827. He was connected with the development of the River Leven, a trustee at the Leven Iron Company's sequestration, a manufacturer of, and dealer in brick and tile at Cupar, a partner in the Fife Banking Co., Secretary of the Fife Fire Insurance Company, and purchaser of Gilston Estate (Largo Ward). It should come as no surprise, then, that the ten shareholders of the paper making firm of Robert Tullis and Co. at Auchmuty, set up in 1809, were Robert Tullis 2 (shares) John Ferguson, banker, Cupar (Trustee on the estate of James Stronach, the flour miller at Auchmuty) 2, James Kyd, lawyer, Cupar 1, David Allen, tobacconist, Cupar 1, James Walker, preacher, Edinburgh 1, and Alexander Gydon/

1. S.R.O. RS 32/197 p.17.

2. S.R.O. Sasines, Fife, Places 1781-1820 11267.

3. River Leven Trustees, Sederunt book No. 1

Grieve the manager $\frac{1}{2}$ a share.⁽¹⁾ Nor is it surprising that Ferguson's estate was sequestrated in 1815 and Kyd's in 1827, the latter's lack of capital being illustrated in debts of £39,570 and a dividend of 9d, paid in 1842.⁽²⁾

But not all the entrepreneurs were from well-established manufacturing families nor ^{were they} men with contacts in the legal or banking world. Some entrepreneurs came in from other fields and many others rose to entrepreneurial status through company management. Prominent among the first class were the flaxdressers. As the home production of flax declined and the new spinning mills became more efficient they gradually integrated the earlier processes of production forcing the independent hecklers out of business. On the one hand there are several instances of bankruptcy among flax dressers or cases where hecklers have become employees in the flaxdressing departments of spinning mills, some of the more important flaxdressers became spinners.⁽³⁾ Joseph Russell, the Kinghorn spinner with Walter Fergus is mentioned as a flax-dresser in George Millar's sequestration 1799⁽⁴⁾ and there is a Charles Arthur, flax dresser, Kirkcaldy mentioned in a sequestration of 1819.⁽⁵⁾ Alexander Robertson/

1. C.D.M. Ketelbey, Tullis Russell p. 31.
2. S.R.O. CS 230 Sequestrations K/1/20. James Kyd's sequestration 1827.
3. S.R.O. CS C236 G/12/1. Greig v. Robertson 1799. One of the witnesses, George Reid, had been Overseer at Aytoun's Works at Kinghorn since their opening. He had been a flax dresser for 35 years previously.
4. S.R.O. CS 230 Sequestration M/1/12, George Millar's sequestration 1799.
5. S.R.O. CS 235 Sequestration T/1/30, Thomsons sequestration 1819.

Robertson, flax-dresser in Pathhead, who developed a new type of heckle,⁽¹⁾ recommended by the B.O.T. was the purchaser of Prinlaws, in 1810, and was also connected with Haughmill till his failure in 1827.⁽²⁾ The failure of all these concerns further illustrates the lack of capital in the Fife spinning trade.

In the early years of power spinning in Fife, managers who had been trained in the great Scottish mills, or, in England were highly prized and, as the industry developed in Fife, there was a steady stream of new entrepreneurs bred in the great mills at Prinlaws and Kirkland. William Drummond, who founded Balgonie Mill had been trained at Ballindalloch Mills (Balfron), James Aytoun had originally been sent to learn cotton spinning in Lancashire. It would also appear that the Kirkland Works was in touch with Marshalls of Leeds, for, when James Carmichael was given an introduction to the firm, John Drummond talked of "his old friend Mr. John Marshall of Leeds."⁽³⁾ Thomas Wright who converted the lint mill at Prinlaws into a spinning mill in 1805, had been the manager of the Roslin Spinning Mill and was aided in the new enterprise by his former employers;⁽⁴⁾ George Rontree, who set up the first mill in Dunfermline, on a very small scale, in 1806, was previously the superintendent at Brucefield.⁽⁵⁾

In/

1. S.R.O. B.O.T. NG 1/1/31, 26/6/1805.
2. S.R.O. CS 44/August/1826. Alexander Robertson's sequestration.
3. Textile History of Dundee, p.44.
4. S.R.O. CS 96/1057. Thomas Wright's sequestration 1807.
5. Henderson, Annals of Dunfermline, p.307.

In the later developments, Alexander Boswall who spun on a large scale at East Prinlaws, from 1828 to 1835 and later at the Hawkslaw Works, Leven, was previously manager at Balgonie Mill.⁽¹⁾ Alexander Watson who greatly developed the Mills in the Dura Den in the fifties was for many years the manager of the Kirkland Works,⁽²⁾ whilst Thomas Turnbull who bought Strathendry Bleachfield, in 1831, had previously been at Prinlaws. It was even possible for managers who had been sacked to set up on their own, though not perhaps successfully. Following a visit to Walkerton Mill owned by William Shanks, the superintendent of factories in the East of Scotland, wrote to James Stuart, the inspector "I learned that Mr. Shanks was a discarded manager of Mr. Fergus' Mills and now in pecuniary difficulties."⁽³⁾ In general it was probably harder to rise from manager of a mill to successful spinning mill owner than in manufacturing where a number of later owners of powerloom factories such as the Speedies at Kirkcaldy or the Lumsdens at Freuchie had grown from agents to large firms, through independent manufacturing to factory ownership. Nevertheless, the growth of factories allowed some men to rise far within an organisation. James Birrell, son of a wheelwright, for many years Clerk to John Fergus, and in charge of Fergus' business in Kirkcaldy (with a fourth share in the shipping and general business) was able to take/

1. River Leven, Sederunt Book, 37/7/1828 to 5/12/1829.
2. Fife Herald, 27/10/1842.
3. B.P.P. 1840 X. SC on Mills and Factories Appendix I p.667, Beal to Stuart, 8/7/1837.

take over the business of George Elder and Sons, Kirkcaldy with his capital of £2,000 in 1853.⁽¹⁾ By 1859, as the owner of a large business, he was elected Provost of Kirkcaldy but Birrell had overreached himself and, in 1860, his estates were sequestrated.⁽²⁾ In Erskine Beveridge's Linen factory, at Dunfermline, there was W.G. Dobie who, "from a subordinate position gradually rose to be principal manager of these now extensive works."⁽³⁾

In his evidence to the Select Committee on Manufactures and Commerce in 1833, the great Glasgow entrepreneur, Henry Mouldsworth, suggested that it was possible for the manager to gain a growing share in a business and then take over on the partner's death.⁽⁴⁾

This was the case of Alexander Struthers at Brucefield, who in 1799 was described as "manager for Mr. Stark, flax manufacturer at Kirkhill."⁽⁵⁾

In a later example, David Stark, a farmer's son, who was Clerk to Michael Beveridge, wood merchant in Kirkcaldy, entered the firm of Swan Brothers in 1842 and was a partner of the large firm from the death of Alexander Swan till his own death in 1883.⁽⁶⁾ Others, such as Robert Bisset at Haugh mill, later at Prinlaws, were managing partners from the start, whilst others, such as H. J. Borthwick Manager/

1. S.R.O. CS 318/19/18, James Birrell's Sequestration 1860.
2. Ibid and Fife Free Press 26/11/1904. J. Birrell's obituary.
3. Dunfermline Public Library - Birrell's scrap books. Dobie's obituary 1861.
4. B.P.P. 1833 VI p. 320.
5. CS 236 G/12/1 Greig v. Robertson 1799.
6. F.F.P. 3/2/1883, David Stark.

manager at Prinlaws in the thirties and forties had only a small share; in Borthwick's case £2,000.⁽¹⁾

There were also cases where spinners, who had failed, could continue to manufacture or were in demand as managers. Thus, James Aytoun, following his failure in 1803, was employed at Haugh Mill and Kirkland before purchasing the Abbotshall Mills in 1822 and becoming one of the leading Kirkcaldy spinners. George Wilson, who before 1827 was a manufacturer in Kingskettle, began business in that year as a spinner at Largo Mill with a capital of about £300; he proceeded to lose his money but was aided by his brother (a working mechanic) and the superintendent of the Mill. In 1832 he came to Haugh Mill which he took on a short lease, the machinery being largely provided by the landowner but Wilson failed in 1837 and the Mill was advertised for sale as "Long used for spinning on hire"⁽²⁾ However, no buyer could be found. Thus, following Wilson's composition, he continued to spin at Haugh Mill, largely on hire till he again failed in 1860; meanwhile for several years in the fifties, he was living at Prinlaws House and acting as Manager of the Prinlaws Works.⁽³⁾

Capital from outside Fife, business and family connection, and progress, via management and outside experience, are obviously the main features of Fife enterprise, with a strong suggestion of insufficient capital. To conclude this section, consider the case of the/

1. Fergus Papers, John Fergus Ledger 1849-1851, H.J. Borthwick's Acc.
2. F.H. 19/7/1838 also CS 46/No.98/ Mar. 1840, James Aytoun was Wilson's Trustee.
3. CS 318/11/342. George Wilson's Sequestration.
N.L.S. Fergus Papers ACC No. 3764 Letter 19/3/1852.

the Drummond family who incorporate many of these features. John Drummond, an assistant to Archibald Neilson, the Dundee Stampmaster followed him to Kirkland where he married one of Neilson's neices, and later became a partner in the Works. One of his brothers, William, was trained at Ballindalloch Works, Balfour, where he became a friend of James Carmichael, whose son, Peter, was to be a leading partner in the firm of Baxter Brothers, Dundee. While at Balfour he married Mary Munro, the daughter of a wealthy indigo planter. Carmichael proceeded to Kirkland where he became manager and in 1806 married a Drummond sister. In 1807 William returned to Fife and built the flax spinning mill at Balgonie in partnership with David Cathro, described in the fou as of Kirkland Works. (1)

The sequence of events is not untypical. In 1810 Drummond failed, Carmichael's comment being "The mill had been expensively, I may say extravagantly built and fitted up and the stern reality of keeping it going through bad years was in striking contrast to the romantic marriage that led to its erection". (2) Drummond composed with his creditors and he and later his wife continued the mill till the thirties, when, not surprisingly, it was purchased by a member of the Baxter family.

IV.

Turning to the financing of the early mills, the various methods used by entrepreneurs to set up their businesses and keep/

1. S.R.O. Leven & Melville Papers GD 26/V/716/1.
E. Gouldie, Dundee Textile Industry pp.5-8.
2. Ibid p.11.

keep them going will be described, distinguishing the supply of fixed and floating capital. It will then be shown how a chronic lack of capital led to the collapse of many individual concerns and the establishment of an inherently weak industry, based on widely extended and poorly secured credit, unable to weather the rigours of increased competition and cyclical depression, which characterised the decades following the peace of 1815.

In order to survive, a business must, in the long term, cover its fixed and variable costs. It must be able to pay for the buildings and machinery it uses, meet the costs of production, particularly labour, and pay for the time between the purchase of the raw materials of production and the sale of the finished goods. The coming of the ~~power~~mills signals a new era, in that unprecedented sums of fixed capital were called for and at the same time a whole new field was created for individuals to invest in and for borrowers to use as collateral. Initially, it may have been possible for entrepreneurs, merely to transfer their capital from one industry to another by withdrawing from the former activity. Unfortunately, there are no figures to suggest to what extent the early Fife entrepreneurs continued or decreased their manufacturing activities, however, the number of partnerships suggest the need to raise considerable sums. All the early Fife mills, as we have seen, were partnerships though, only for the Haugh Mill, does the contract of copartnership survive. In that case, the sum raised was £1,800, one-third being for the purchase of the building and two-thirds/

two-thirds for stock and machinery.⁽¹⁾ In the case of Kirkland £6,000 was said to have been expended in setting the Mill going. How much was in fact needed to finance a spinning mill?⁽²⁾

Robert Gemmill, a prominent spinner and weaver in Belfast, wrote to McConnell and Kennedy in 1804, "It often surprises me to see with what trifling sums people think they may carry on the cotton manufacture here, for my own part I began with £10,000 British pounds and found the same little enough to carry on in a proper manner."⁽³⁾ This point shows the amount of capital which Fife firms would need to compete with Ireland. It also suggests the reason why Fife was unable to compete with the large cotton mills of the West. After the opening of the Forth and Clyde canal in 1790 it was obviously cheaper for manufacturers to buy their cotton yarn from the West than pay the high price of transporting the bulky raw material. John Marshall, who by the scale of his business was able to produce on a large scale in a period when many small men were ruined by fluctuating flax prices, increased his wealth from £40,000 to £400,000 between 1804 and 1815.⁽⁴⁾ When asked if £1,000 was enough to start a spinning mill he replied, "He would not make much way in flax spinning. In our business it is too small a capital to begin with."⁽⁵⁾

Unfortunately/

1. S.R.O. CS 230 Sequestration M/1/12. G. Millar's sequestration 1799.
2. S.R.O. B.O.T. NG 1/1/27 2/2/1790.
3. C.H. Lee, Marketing organisation and Policy in the cotton trade, p.92.
Gemmill to McConnell and Kennedy 21/2/1804.
4. J. Rimmer, Marshalls of Leeds, pp. 69 and 87.
5. B.F.P. 1833 vol VI S.C. on Manufactures, Commerce and Shipping Q 2472.

Unfortunately the lack of partnership details precludes any detailed study; further, sequestration records are not helpful in this field, because in some cases (e.g. George Millar of Haugh Mill) a partner could fail without the business being insolvent. In many cases the bankrupt was the sole surviving partner, his bankruptcy being due to the loss of funds at his partners' death or retirement from the partnership. Records suggest that partnerships were usually formed by those who had saved the profits of their previous activity and there was often a banker or lawyer who would take a share or lend money to the partners, as did John Ferguson, the Cupar Banker at Prinlaws, Russell Mill and Auchmuty Mill.⁽¹⁾ The evidence suggests that these were sleeping partners. This was certainly the case at Kinghorn in the partnership from 1816 to 1824 when Charles Arthur was joined by Ninian Lockhart, manufacturer in Kirkcaldy, and William Swan, agent to the Glasgow Banking Co. at Kirkcaldy. Evidence from Haughmill, Kirkland and Brucefield indicates management taking a share in enterprises. There are also cases where monied men were encouraged to join a partnership, as in the case of Walter Fergus at Kinghorn or at Cabbagehall and Rothes Bleachfields.

The principal means of financing enterprise was by borrowing. In a number of cases money was borrowed from estates which the borrower could expect to inherit. Thus, in 1835 the trustees of the late Walter Fergus were seized in Strathore estate in security for £24,000/

1. S.R.O. Sasines File, Places 1781-1820, Nos. 8700, 10160, 7384.

£24,000 and Prinlaws for £8,000.⁽¹⁾ When P.D. Swan, the Kirkcaldy spinner, purchased St. Brycedale House in Kirkcaldy, once the home of the Heggies of Pitlessie, he received a loan of £5,000 from the trust estate of his uncle, Col. Don of Springfield, using the property as a security.⁽²⁾ Others borrowed against the sums their wives were expected to inherit. In the early years the number of banks in the county was small and only as the century progressed did the opportunity to borrow from banks arise. Banks were also reluctant to make long term loans, although there are examples of early millowners receiving large loans from banks, as in 1801 when John Melville and son (Prinlaws) were given a bond of credit by Birkbecks Alcock and Co., bankers Settle, for £5,800, not repaid till 1809.⁽³⁾ Rediscounting of bills, and failure to meet bills or pay back overdrafts of course lengthened short term credit but in the main, banks concentrated on the provision of credit facilities. In some cases industrialists became bankers as did the Peels in Lancashire. Walter Fergus of Strathore was one of the original partners of the Glasgow Banking Co. taking up three shares of £5,000 each at the bank's incorporation in 1809.⁽⁴⁾ The bank's only branch was immediately established at Kirkcaldy and William Swan (soon to be a partner in Charles/

1. S.R.O. Sasines Fife, Places 1831-40 Nos. 2009 and 2010.
2. S.R.O. B. 41/3/10 Sasines, Kirkcaldy p.7.
3. S.R.O. Sasines, Fife, Places 1781-1820 26/12/1801 No. 6055.
4. R.S. Rait, History of the Union Bank of Scotland, p.202.

Charles Arthur & Co.) became the bank's agent.⁽¹⁾ By 1830, John Fergus had joined the bank partnership as had George Anderson, banker in Kirkcaldy and Alexander Dennistoun M.P. for Dumbarton.⁽²⁾ The bank was probably more generous in its loans to the Linen industry, lending George Gordon, the original power loom, linen manufacturer £2,778 in 1829, for example. The journal of John Fergus and Co. reveals that the bank advanced the firm funds to pay for machinery, at Kinghorn and, it was his connection with the bank, which later allowed John Fergus to raise large sums for the extending of Prinlaws Works and village, his 300 shares of £100 each providing good security.⁽³⁾ The bank's involvement with Fife business is revealed by the serious problem, which the failure of Alexander Russell & Sons caused ^{for} the Union Bank in 1851, the/

1. Ibid p.202.

2. Ibid p.208.

The original partners of the Glasgow Banking Co. included Henry Boase, a banker in London. The Boase family became closely involved in Fife Spinning with the acquiring and extending of the Hawkshaw Works, Leven on the failure of Alexander Boswall and Co. in 1860. There was also John Baxter of Idvies, merchant, Dundee of Baxter Bros, associated with Kirkland Mill and Balgonie Mill and James Dennistoun, merchant, Glasgow of the firm of Dennistoun Buchanan and Co. to which much of Fergus' output was sent at the beginning of the century. James' son Alexander like Walter Fergus' son, John became an M.P. and Fergus' Ledger for 1850-1852 reveals several speculative adventures on joint account between the two, giving further proof of the close interconnection of Nineteenth century, Scottish business families. Walter Fergus' trustees under a disposition made in 1824 were James Dennistoun, Esq. of the Glasgow Banking Co., Thomas Creighton of Auchinshesach, Alexander Dennistoun, merchant in Glasgow, John Collier, merchant, Dundee and William Swan, merchant, Kirkcaldy. John Fergus was an extraordinary director of the amalgamated Union Bank of Scotland from 1844-1850 and an ordinary director from 1850-1855 and in 1857. The loss of the bank's early records precludes any detailed comment.

3. Rait op.cit. p.208.

the bank losing £23,000.⁽¹⁾

From the first years of the Fife power-spinning trade, the raising of heritable bonds on the security of mill buildings became the entrepreneurs' most important source of long-term funds. The bond allowed the borrower to pay off his debts over a long period. It could also be an attractive investment opportunity for the lender, so long as the value of the property was maintained, because claims over heritable securities were preferable to those of the unsecured trade creditors. So heavily did many mill companies become mortgaged, even in good times, that in depressions there was often nothing to fall back on. If a company, which failed in these circumstances, was able to continue by composing with its creditors, its position would remain critical, being liable to fail in a subsequent depression.

Funds to finance bonds came from several sources. Some entrepreneurs were able to call on their family. Thus, at Balgonie, on William Drummond's failure in 1810 he owed £3,400 of principal to his wife's uncle, Major Munro of Livingston in a bond of June 1809.⁽²⁾ The Munro family continued to hold bonds over the mill and, when the business passed to Baxter and Stuart, J.C. Stuart, an Edinburgh lawyer, had a bond of £3,000 over the property before he himself took it over.⁽³⁾ As we have seen, lawyers and bankers were involved in putting out money on mill properties, other businessmen also lent money to/

1. Rait op.cit. p. 287. Russells, machine makers in Kirkcaldy were closely involved with the Linen industry. Alexander Russell was trustee on Robert Kirk's sequestrated estate from 1836-1851.
2. S.R.O. R.S. 32/3/57. bond of 26/6/1809 (William Drummond married a Munro).
3. S.R.O. RS 3/2012/17.

to millowners. As well as being interested in mills in Kirkcaldy, George Dougall, the Kirkcaldy shipowner, loaned Charles Arthur and Co. £2,500 in 1833.⁽¹⁾ In an earlier case, when Thomas Wright was unable to pay for Prinlaws, in 1806, he disposed the property to his old partner Robert Dick in Roslinlea, agreeing to pay him £100 for 19 years. Dick was to pay Wright for any improvements he had made by the end of the lease.⁽²⁾ There are also examples of Ministers of Religion investing in mills as did the Rev. Dr. James Lyon who had a bond over Lebanon Mill, Cupar for £800.⁽³⁾ Tenant farmers too, sometimes had money to spare, thus, over the same mill in 1815, David Dickson, tenant in Carslogie near Cupar, and others had a bond of £800;⁽⁴⁾ Whilst D. Watt the tenant in Balbie was more heavily involved, lending £2,000 on the security of the Coal Wynd Mill, Kirkcaldy.⁽⁵⁾ In certain cases London merchants might lend money to mill owners, though they were much more important in providing advances to manufacturers on goods consigned. Thus, Garry and Curtis, London merchants, had a bond for £1,500 over Drummonds Balgonie Mill, in 1816, and were similarly involved in 1839.⁽⁶⁾ In 1837 the Kirkland Mill was disposed by Messrs. Peter to a consortium of Garry and Curtis, William Lindsay, merchant, Dundee and David Landale, merchant, Kirkcaldy.⁽⁷⁾ Two case histories will reveal the/

1. S.R.O. B. 41/3/8 Sasines, Kirkcaldy p.259.
2. S.R.O. CS 96/1057. Thomas Wrights sequestration 1807.
3. S.R.O. Sasines, Fife, Places 1821-1830 No. 2125.
4. S.R.O. Sasines, Fife, Places 1821-1830 No. 2160 20/2/1815.
5. S.R.O. Sasines, Fife, places 1821-1830 No. 3312. 21/8/1826.
6. S.R.O. Sasines, Fife, places 1781-1820 No. 11119 4/7/1816.
7. S.R.O. Sasines RS 3/1900, p.269.

the extent to which property could be mortgaged, by firms with small initial funds. (1) John Melville was seized in part of Prinlaws on the 30th of June 1792; by the following June the trustees for his creditors were seized in the property and, in 1796, he got a bond for £700 from one D. Robertson, handwriter in Dysart, and £800 in a loan on the security of property in Dysart. In 1801, he secured a bond of credit from a D. Patterson, banker and insurance broker in Edinburgh for £1,000 and in the same year £5,800 from Birkbecks Alcock and Co. bankers in Settle. On the 18th of August, 1804, the trustees for Melville's creditors were seized in the property. (1)

2, Part of Prinlaws passed via Thomas Wright and John Ferguson, to Alexander Robertson, flaxdresser in Pathhead, who borrowed £1,000 from Robert Philp, merchant in Kirkcaldy in 1811 and 1812. In 1816, 19 and 24 loans were made to Robertson of £1,200, £2,000 and £2,500 by James Hendry, flax spinner, in Linktown. When Robertson failed in 1826, the property was disposed to Hendry. (2)

The extent to which properties were assigned to bondholders led to a considerable lock-in effect. In a situation where many firms were operating at the margin, depression would lead to business failures and sinking property values. Inability to find a market for property tended to bring the price down further. Thus in the context of the highly-mortgaged flax spinning industry, if a firm failed, the/

1. S.R.O. Sasines, Fife places 1781-1820. 3301, 3639, 4429.
Sasines, Fife places 1781-1820 4705.
Sasines, Fife, places 6030, 6055, 6868.
2. S.R.O. Sasines, Fife, places 1781-1820 No. 9217.
Sasines, Fife, places 1821-1830 No. 3391.

the eventual selling price of the property would often be less than the burdens over it. The burdens could, therefore, be passed on to the next proprietor as was done at Prinlaws in 1805 following Melville's failure. In other cases, the creditors were forced to accept a composition from the bankrupt, for, if a sale of the property were carried through, the creditors would end up paying for the process and owing the bondholders. The Creditors of Alexander Glenday, millspinner in Cupar, agreed to accept a composition of 1/6d from him for the assets would only yield 1/4d which was less than the value of the security over the property.⁽¹⁾ In the case of George Wilson at Haugh Mill, the valuers were instructed to value the mill, bearing in mind the depressed state of the spinning trade, the number of failures in the previous eighteen months and the number of mills which had not found a market at greatly reduced prices. In spite of debts of £26,416, the creditors preferred to accept an offer of composition of £4,000 towards the purchase of the mill from Wilson's friends, rather than bring the property to a sale.⁽²⁾ Composition was made easier by allowing bankrupts to pay their compositions by instalments; thus William Drummond in 1811 was to pay 10/- plus the expenses of his sequestration in equal parts at 6, 12 and 18 months; James Robertson, Flaxdresser and Manufacturer in Dysart had to pay in 3 and 6 months, again in 1811.⁽³⁾ In many cases such compositions only postponed a further/

1. S.R.O. CS 46/41/1840. Alexander Glenday's sequestration 1837.
2. S.R.O. CS 46/No.98/March 1840. George Wilson's sequestration 1837.
3. S.R.O. CS 32/3/57, William Drummond's sequestration 1811.
S.R.O. CS 34/24/50, James Robertson's sequestration.

further more serious sequestration and increased the instability in the system. Thus, when Scott and Taylor failed, in 1839, they believed that lack of capital was the only reason for their failure. As the trustees concluded "indeed, the copartnery has not been in a very wholesome state since their last bankruptcy."⁽¹⁾

The decline in property values in a depression points to another method of entering business. In a depression speculators could buy up property cheaply. Robert Tullis, the paper maker only paid £400 for the bankrupt James Stronachs mealmill in 1809.⁽²⁾ Prinlaws Mill which had been valued at £10,000 was advertised for sale at £4,000 and, the fact that the five storey building had only 24 frames in it and yet could hold 84, shows how the purchasers could greatly increase their output without altering the building at all. It further confirms John Melville's lack of capital.⁽³⁾ Where sale was slow, sellers sometimes offered to sell the property by instalments; thus, Prinlaws could be paid for at Candlemas 1806, Candlemas 1807 and Martinmas 1807.⁽⁴⁾ Half a century later, ~~as no~~ sale could be got for Blebo Mill⁽⁵⁾ (Dura Den) so it was advertised that "it may be possible with respectable parties to arrange for a considerable part of the price being paid by instalments." No respectable/

1. S.R.O. CS 96/791. Scott & Taylor, Frenchies' Sequestration 1839.
2. Kotelbay, Tullis Russell, p.121 - It is important to remember that such practices were general and not confined to the textile industry in Fife.
3. Edinburgh Advertiser, 27/9/1805.
4. Ibid.
5. Fife Herald, 31/7/1856.

respectable parties appearing it was agreed "to allow the greater part of the price to remain on the security of the property."⁽¹⁾

Where a mill had been built by a landowner or, where an owner did not want to run the mill, it was possible to spin on hire. In other cases, where finance became tight, spinners would produce their yarn on commission, all the yarn being sent to the dealer who provided the raw material and cash advances during production. Thus, James Archibald, Kirkcaldy, who failed in 1836 leased the Coal Wynd Mill, Kirkcaldy on the failure of Ebenezer Birrell in 1819 and, by 1827, was able to purchase his own mill.⁽²⁾ In the same period, Alexander Robertson, whom we have seen borrowing heavily on Prinlaws Mill, made an agreement with William Swan, the Kirkcaldy banker, who was now becoming a flax merchant: Swan was to buy 100 tons of 12 head flax to be spun at Prinlaws and Haugh Mill into yarns as directed by himself. Swan was to pay 5d per spynkle for lint and 7d for tow yarn. Robertson was to pay for carriages and charges to and from the mill.⁽³⁾ This type of arrangement gave men in difficulty or with little capital, an opportunity to improve their situation; it also allowed men like John/

1. Fife Herald, 13/11/1856. The eventual purchaser was Alexander Watson, the manager at the Kirkland Works. Such were the burdens on Lebanon Mill, Cupar, that Alexander Glenday had only to pay £100 cash for the property in 1834. (CS 46/41/April 1840) Coal Wynd Mill sold to James Archibald for £2,030 with a bond of £1,200 would only fetch £1,450 at Archibald's sequestration in 1836. With the bond, the cash payment was reduced to £250. (CS 231/A/1/32.
2. S.R.O. CS 231/A/1/32. James Archibald's sequestration.
3. S.R.O. CS 44/August 1826. Alexander Robertson's sequestration 1826.

John Fergus to find a market for his flax speculations.⁽¹⁾

Another means of starting production, with the minimum capital outlay, was by converting property rather than by putting up new buildings. Not only did this greatly reduce the cost of building but it encouraged water-powered developments with ready-made power systems. The initial result was that much early spinning was carried on in dark low-ceilinged buildings where working conditions were unsuitable, and highly dependent on the state of the rivers. It would be a long time before Fife saw the system of regular hours found in purpose-built steampower mills. Conversion also explains the sudden decline of some flax mills. In certain cases, flax spinning was merely added to the mill occupations and, dropped, as small scale mill spinning became unprofitable. This was particularly true of the Eden Mills, Tarvit Mill, Cupar, Meal Mills, New Mill, Rungally and Lydox Mills which continued to grind corn. In other cases cornmilling was only a small part of a larger complex, devoted to spinning, as at Blebo (Ceres burn) or was totally separate from the spinning concern, as at Haugh Mill. In many cases Mills were completely converted to flax spinning, at least for a considerable period. Favourite sites included Naullmills as at Kinghorn, Walkerton, Sparrow Mill, Haugh Mill and Lydox; flax mills, such as Leslie Lint Mill; and the corn and flax mills at Russell Mills (Cupar) and neighbouring Spital Mill, converted in 17/18.

1. Fergus Papers, Ledger 1850-1852.

N.L.S. - Fergus Papers, Acc 3764, A.G. Malcolm to John Fergus 19/6/1858.

in 1821 to a tow mill at a cost of £4,000.⁽¹⁾ Lebanon Mill at Cupar was converted from a Wash Mill in 1813⁽²⁾ and Strathendry bleachfield workings were formerly used as a corn mill,⁽³⁾ whilst Kirkland, the first mill, made use of the coal-engine and its lade system. As most of the early mills were in rural districts, there were no conversions of private houses and town mills were normally built on cleared sites, yet Balfour's mill in Coal Wynd Kirkcaldy was converted from a house.⁽⁴⁾ So great was the demand for property for conversion, that landowners advertised their sites as such. Thus we find "Lundin Barley Mill, particularly calculated for carrying on a yarn manufactory to a considerable extent."⁽⁵⁾

Finally, firms could purchase second-hand plant and machinery, either, when a firm was converting to a different type of machinery or, at the rroup of a bankrupt's goods. Of course, the earliest firms would have had to buy or make their own machinery, but at Aytoun's early mill at Kinghorn, a colliery steam-engine was utilised - though unsuccessfully. In other cases, firms enlarging, sold off redundant steam engines, thus George Moon sold a 10 H.P. engine in 1824.⁽⁶⁾ Hall, a Dunfermline spinner/

1. N.S.A. Vol. 9 Fife: Cults p.573.
2. S.R.O. Sasines. Fife places No. 10222.
3. S.R.O. Sasines RS 32/197 p.18.
4. S.R.O. Sasines Fife, places 1821-1830 No. 485. Swan's in Kinghorn was converted from a Mill to a tenement following their failure in 1886.
5. Edinburgh Advertiser, 1/2/1799.
6. F.H. 23/12/1824.

spinner, specifically mentioned that he was selling his 6 H.P. engine to buy a larger one.⁽¹⁾ It was even possible to buy a second-hand water wheel.⁽²⁾ Throughout the century the sale of spinning frames was advertised, often as firms changed their output. In 1836 Balgonie Mill was selling its 14 30 spindle frames because they wished to produce finer yarn.⁽³⁾ In other cases, the machinery may have become redundant.

The early entrepreneurs had to bear the full cost of setting up a new industry, beset with technical difficulties, and although so many men failed, all the evidence suggests that, whilst the capital cost of setting up business appeared to be high, there were many ways of reducing the burden or of spreading it out over a number of years. Yet, shortage of capital appears an important, continuing reason for business failure.⁽⁴⁾ Lack of capital, combined with inadequate water supplies, and the as-yet-small scale of the Dunfermline Damask trade, may account for the lack of large, wet spinning mills in the County. Fine yarns, with their greater price fluctuations, also harder to produce, were better suited to large scale mills. In Ireland, the early cotton mills failed to recover from the depression of 1825 and the large bleacher-capitalists with funds/

1. F.H. 9/1/1834.

2. F.H. 15/2/1825. Neilson and Co. advertised their 40 H.P. water wheel because they were about to instal an 80 H.P. wheel.

3. F.H. 12/5/1886.

4. The case of Charles Arthur illustrates the point. He had been in business in Kinghorn since 1816 with a number of partners. In 1833 he brought his sons into a partnership on the dissolution of the old contract but was forced to borrow £2,500, sell one of the Kinghorn Mills to William Swan and bond the others to his old partners. The firm survived till 1837, composed with its creditors, but failed again in 1842.

funds available to adapt Key's machinery to the needs of Ireland's fine products entered the industry on a large scale. T. and A. Mulholland, for instance, started their York Street Mill, in Belfast, in 1828, and by 1852 were employing some 800 workers and 16,000 spindles.⁽¹⁾ Continuing lack of demand may explain the smallness of Fife's involvement in wet spinning. As James Aytoun, the trustee in George Wilson's sequestration, commented on Wilson's wet spun yarn, "Such kind of yarn is not much used in this country."⁽²⁾

Lack of long term-capital may have restricted the overall development of the spinning trade in Fife, the availability of credit determined its short-term existence. A business could survive so long as it could obtain short-term loans or overdraft facilities from a bank, could discount its bills of exchange, or could find accommodation from friends and family. The whole business community was involved in providing credit at the various stages of production. All the textile industries, in the industrial revolution, were dependent on credit. Thus, Hartwell, describing the Yorkshire woollens industry, pinpoints the position: "The variable costs were spread in a network of credit which eased the burden of the manufacturer. He bought his raw material on credit, and although he sold his cloths on credit, he could get advances on/

1. E.E.R. Green. The Laggan Valley, pp.113 and 114.
2. S.R.O. CS 46/98 March 1840, George Wilson's sequestration.

on consignments."⁽¹⁾ To the flax spinner, the raw-material-supplier's credit was crucial, for, by extending his credit, he could spin up his yarn and sell it before having to pay for his flax. In the early years, the Fife spinners' major creditors were in Leith, the main flax importing centre for Fife, the Leith merchants being either principals or agents for Dutch or Baltic Houses. Where firms imported their flax directly, the debts would be owed to the exporting merchant, though they were usually discounted in Britain. With the growth of Dundee as a flax importing centre, and the establishment of a sophisticated market in flax, indebtedness to Dundee merchants increased greatly. It appears, however, that Fife was not dependant on Dundee alone; Charles Arthur, for instance, owed large amounts to flax merchants in Kirkcaldy, Dundee, London and Ulster, at his failure in 1837.⁽²⁾

When a firm set up business it was also possible to buy the plant and machinery on credit. In a case such as Haugh Mill, where George Wilson failed to pay for the machinery installed, the credit became long term.⁽³⁾ Bleachers, too, would give credit because they were able to establish a lien over their goods. Further, as they were only bleaching on commission, they were encouraged to speculate in bleached goods and also became involved in the supply of flax. Thus, in the case of Charles Arthur, David Landale, the bleacher at Lochty (Thornton), was willing to renew bills on flax purchased, because he had a security in Arthur's goods at the bleachfield. Not only was Arthur indebted/

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1. R.M. Hartwell "The Yorkshire woollen and worsted industries 1800 to 1850. D.Phil Thesis Oxford, 1955, quoted in Pollard. Fixed capital in the Industrial Revolution p.307.
2. S.R.O. CS 46/73 March 1838, Charles Arthur's sequestration.
3. S.R.O. CS 46/98/March 1840, George Wilson's sequestration.

indebted to Landale, but to Donaldson at Rothes field, Scott and Taylor at Kirkforthar (Frauchie) and Spittal, Tyrie (Kirkcaldy) ⁽¹⁾

Central to the supply of credit was the banking system, and the bankers' knowledge of individual firms, determined a firm's ability to gain credit. Study of early sequestrations shows that, by far the largest part of an estate's indebtedness was composed of bills payable to third parties, discounted by banks. Of the £26,416 owed by George Wilson, in 1837, £16,000 was claimed by the Commercial Bank of Scotland, on an estate bought back by Wilson on a composition of £4,000. ⁽²⁾ In an era where bank credit was so important, they further influenced business activity by making discounts cheaper and more readily available at the bottom of a business cycle, and more expensive near the top, when the rate of discount would approach the firm's margin on goods sold. Banks also, increasingly, provided overdraft facilities, which again became long-term finance when they were not called in. When Robert Tullis bought Rothes bleachfield, in 1846, he assigned it to the Western Bank, in return for an overdraft which only had to be paid off at the bank's failure in 1857. ⁽³⁾ Established businesses, such as that of George Moon at Russell Mill ⁽⁴⁾, were given cash credits and in the case of Kirkland Works, the sum allowed was £15,000. ⁽⁵⁾ In some cases little attempt was made to ascertain the borrower's credit worthiness/

1. S.R.O. CS 46/78/March 1838, Charles Arthur's sequestration.
2. S.R.O. Wilson's sequestration - op. cit.
3. Ketelbey, Tullis Russell, p.75.
4. S.R.O. Sasines, Fife, places 1781-1820 11074.
5. S.R.O. RS 3/1900, p.269, 7/7/1837.

worthiness, the Commercial Bank being criticised for advancing George Wilson £1,990 when he was already insolvent.⁽¹⁾

Tying the credit system together, was a web of short-term accommodation, which could again be lengthened if borrowers failed to pay up. Such accommodation used to meet pressing bills and, for immediate payments such as wages might be provided by family, friends or business colleagues. George Wilson again, had received £765 from his brother, £1,253 from the manager of the Largo Mill and £1,272 from his father in law.⁽²⁾ In other cases, the accommodation was between firms who were mutually involved in a particular line of business. The extent of accommodation credit was such, that there was a fear among manufacturers of, "an accumulation of business failures producing a chain reaction of bankruptcies"⁽³⁾ In an industry such as the Fife Linen trade where the chain of credit could stretch from the distant raw-material suppliers, in the Baltic, through the spinners, weavers and bleachers in Scotland, the merchants in Fife, Dundee, Glasgow and London to the West Indies, the Americas and later Australia and New Zealand, there was a real danger that any panic could bring the system down, ^{thus} causing a domino effect amongst the firms which were accommodating each other. This clearly happened, as is shown by the spate of bankruptcies in such years as 1836 and 1837 and 1860.

This/

1. S.R.O. CS 46/98/March 1840, George Wilson's sequestration.
2. Ibid.
3. C.H. Lee, Marketing organisation and Policy in the Cotton Trade, p.94.

This study reveals that a major problem of the Fife spinners was the raising of sufficient capital to set up their mills. Although there were several ways in which the capital burden might be lightened, the industry remained highly unstable because, not only was long-term capital short but the supply of credit was stretched very widely across the industry, especially in accommodation loans between firms, whose failure was bound to have far reaching effects on the industry as a whole.⁽¹⁾

Not only were entrepreneurs faced with the problems of raising enough capital to set up their businesses and keep them going but, as pioneers they were faced with the technical and managerial problems of running a new type of industry under untried conditions. Whilst millowners benefited from the use of converted properties, existing water courses and machinery and ready supplies of building materials, rural water mills had considerable drawbacks. The best falls were often inaccessible, as in the Duraden, or in deep valleys which made transport difficult, as at Prinlaws, Hospital and Russell Mills. Thomson pointed out the high cost/

1. The extent of indebtedness can be seen from the meagre dividends that some of the bankrupt firms which I have been discussing paid.

Alexander Robertson, St. Clairtown failed 1826, 2/6d in the pound
James Archibald, Kirkcaldy failed 1826, 1/6d in the pound
Alexander Glenday, Cupar failed 1837, 1/6d in the pound
Glenday was involved in buying and selling flax, yarn and thread with Boswall and Co, Prinlaws and Guthrie and Baxter, a firm of Dundee speculators. All of whom failed. Boswall was never discharged and Guthrie and Baxter owed over £40,000.

cost of attracting labour to the early resource-allocated mills and drew attention to the high cost of building accommodation for workers in rural locations and the inadequacy of rural roads.⁽¹⁾ This point was echoed in James Haggie's strong preference for a steam-powered site in Kirkcaldy, rather than investment in the rural Kirkland Works.⁽²⁾ Another factor was that, with only two suitable rivers in Fife with competing industrial uses, overcrowding of mills, with the consequent problems of lack of water, placing of mills in backwater and pollution from coal workings, bleachfields and paper works, became an increasing problem, notably on the River Leven, whose management was eventually vested in trustees. Nevertheless, it is important to bear in mind the actual scale of the Fife Spinning trade. Thomson estimated that in 1799 there were 960 mill employees in the county.⁽³⁾ By comparison, at John Marshall's Mills in Leeds in 1803 there were over 1,000 employees, nearly 7,000 spinning spindles and steam engines of 150 H.P.⁽⁴⁾

A problem for the early spinners was the irregular supply of water-power, not only between summer and winter but in the drive of the machinery, which determined the layout of the early mills. The irregularity of water on the River Eden was such that George Moon of Russell/

1. Thomson, General view of the agriculture of Fife p.307.
2. N.L.S. M.S.S. 5319 f 131 Haggie to Berry 7/12/1800.
3. Thomson, op.cit. p.307.
4. Rimmer, Marshalls of Leeds, p.56.

Russell Mill resorted to spinning by day and carding by night in dry spells. He believed that the banning of night work by children would ruin him. (1) Unfortunately, few figures are available of the comparative costs of water power and steampower. It appears that the cost of constructing a water-power system could be high. The repair of the lade and sluices at Haugh Mill in 1833 amounting to £300 (2), yet, this was small in comparison with the cost of installing a steam-engine to augment an inadequate water supply. The figures from Robert Scott's Mill at Lebanon, Cupar, indicate that the value of the 12 H.P. steam engine, two boilers, the shafts and pulleys amounted to over one third of the total value of the mill machinery and utensils. (3) (See Table 3).

There were also problems in the actual spinning of flax. The fibre is more expensive to prepare than cotton. Being a non-elastic fibre, the machinery adapted to spin flax was consequently more expensive than for cotton; further, the number of varieties of flax demands careful sorting in the heckling department, and still about 50% of flax becomes lower-valued tow in heckling. At first, the early mills were unable to make use of this but by 1800 mills were able to spin the short, tow fibres, though the range of yarns which Thomson/

1. B .P.P. 1834 XX, Factory Inquiry Commission. Supplementary Report part II pp. 47 and 50.
2. S.R.O. CS 46/No.98/ March 1840, George Wilson's sequestration
3. S.R.O. CS 96/785. R. Scott's Sequestration.
In later years, a compensating factor on the River Leven was the cheapness and availability of coal. In 1873 John Fergus and Co. who were still using considerable water power were consuming an average of 583 tons of coal per week (Fergus papers miscellaneous).

Table 3

Inventory and Valuation of the Machinery and Utensils of
R. Scott's Estate, Lebanon, Cupar

Steam engine	£525. -- --.
2 Boilers	60. -- --.
10 Shafts, wheels and pulleys	83.17.10.
Water wheel and washing mill	32. -- --.
Damhead sluice	2.15. --.
Set of wringers, 14 steeping tubs, a barrel	4. 8. --.
73 Yarn poles	1. 4. 4.
1 Tow preparing frame, 4 heads, 9 spindles	28.10. --.
1 " " " , 4 " , 8 "	28. -- --.
1 " " " , 3 drawing and 4 spreading heads with spreading tables	42. -- --.
Double beam and scales for parting flax and 2 benches	1.15. --.
122 Tin cans at 5/6d	33.11. --.
Breaker and finisher card, card cloth incomplete	300. -- --.
11 Lint and 4 tow spinning frames, 30 spindles each £45	675. -- --.
2 Double and 2 single reels	9. -- --.
24 Firm baskets and 6 gross pirns	5.10. --.
Making up stool and yarn rock of 12 pirns	2. 5. --.
5 gross of Roving bobbins	4. -- --.
Pair of turning lathe heads tools and 2 cwt castings	4.15. 6.
14 Heckles, a balance with boards and 1 cwt adjusted weights	15. 5. --.
	<u>£1,859. 6. 8.</u>

Ref: S.R.O. CS 96-785 - Sequestration of Robert Scott, Manufact-
urer and Flax Spinner, Cupar, Fife, 1826

Thomson mentions: 3 - 6lb. lint yarn for threads, coarse shirting, ticks, checks, sail cloths and Osnaburgs and 5 to 10 and 12 lb. tow shows that the industry was, as yet, unable to supply the growing fine linen trade of Dunfermline and was not producing any very heavy yarn.⁽¹⁾ Added to this was the low productivity of the early mills, which were expensive on both capital and labour. About 1800, 1 girl was reckoned to attend 24 spindles which would produce 7 spindles per day. By 1840, 1 girl attending 50 spindles was producing 25 spindles per day.⁽²⁾ To make matters worse, flax mills were a greater fire hazard than other mills and in spite of efforts by prominent millowners to have premiums reduced, flax mills remained more expensive to insure.

The Yorkshire and North of England
Assurance Co.

Premiums in sh. per cent

	<u>Buildings</u>	<u>Machinery</u>
Cotton Mills	10	12
Flax Mills	14	16
Woolen mills	10	10

Fife Herald 27/8/35.

As a compensation, the growth of the spinning mills, which became very dependant on female labour, attracted paper mills which used mainly male labour. In the first years of the spinning industry flax/

1. Thomson, General view of the Agriculture of Fife, p.306. Thomson says that Mills were beginning to spin
2. N.S.A. Vol 9, Fife, Kirkcaldy p.755. Rimmer, Marshall of Leeds p.25.

flax waste from the carding and spinning processes was discarded. By 1800, improvements in machinery had reduced the amount of card waste and other waste was being sent from Kirkcaldy to Nottingham for use of the coarse paper trade.⁽¹⁾ By 1806 Archibald Keith had set up a mill at Rothes, to be followed by Robert Tullis at Auchmuty in 1809 and Alex. Grieve at Balbirmie in 1816. These mills were in the centre of the flax spinning developments on the River Leven and by 1845 Rothes Mill was using 25 cwt. per day of flax waste, bagging and ropes,⁽²⁾ and about the same time Balbirmie Mill was getting flax waste from Dunfermline, Balgonie, Haugh Mill and Cupar.⁽³⁾ This waste was then turned into coarse wrapping paper of the type in growing demand from the linen industry. Such was the complementary nature of the two trades especially that of yarn bleaching and papermaking, that Tullis took over Rothes Bleachfield and the firm continued to bleach yarn and make paper till the Nineteen-fifties.

A final problem for the early spinners was the supply of adequate machinery. The early machinery may have been made on the spot as in the machine shop at Haugh Mill and was also purchased from local machine makers.⁽⁴⁾ A study of the few mill inventories of the early period, coupled with the failure of a number of small local/

1. S.R.O. CS 236/Q/12/1. Greig v. Robertson 1799.
2. Ketelboy, op.cit. p.75.
3. N.S.A. Fife p.673.
4. S.R.O. CS 32/13/78, W. Biggar's sequestration 1814. The Haughmill had purchased machinery from a James Hendrie and Co., Machine makers, Kirkcaldy.

local machine makers in the Eighteen-twenties suggests a growing dependence on the emerging machine-making centres. Heavy equipment such as mill wheels, steam engines and boilers were largely made locally, at Durie Foundry, Leven or by Alexander Russell and Son, Kirkcaldy but, carding and spinning machinery was increasingly purchased from Dundee or such towns as Salford and Halifax; thus, there was no technological reaction in Fife between leading manufacturers and machine makers, which must have been to Fife's detriment. In his evidence before the Select Committee on Exportation of Machinery, John Marshall of Leeds laid great emphasis on the close connection and interactions of great manufacturers and machine makers. The point was reiterated by the engineer, Peter Fairburn.⁽¹⁾

To counteract the problems they faced, the early factory masters attempted to integrate their works under a system of disciplined management. Thus at Kirkland and at Prinlaws, the entrepreneurs aimed to create a complete factory community. Not only were heckling, bleaching and spinning integrated at Prinlaws, but attractive fees were offered to weavers.⁽²⁾ Particularly far reaching were the effects of integrating heckling into the spinning mills, both for social and economic reasons. Before the mills were set/

1. B.P.P. 184.VII, First Report of the Select Committee on the Exportation of machinery pp. 194 and 226.
2. Edinburgh Advertiser 23/2/1798.

set up flax, shipped to Kirkcaldy, was heckled in the town and then sent out to be spun. Inland, heckling was carried on at the lint mills. With the coming of the powermills, independent hecklers were either forced out of business, engaged in spinning or took jobs in power mills.⁽¹⁾ Yet, because the task of heckling required strength and skill, it remained a highly-paid male preserve. The very nature of the heckler's position at the beginning of the spinning process allied to his independence, political awareness and tendency to drink, encouraged the manufacturers to put in heckling machinery. In July, 1834, a strike by the hecklers at Kirkland, due to wage reductions, was supported by other workers and a fortnight later heckling machines were introduced. The next year Fife manufacturers were forced to accept a 3d wage rise granted in Dundee for which the Fife hecklers had threatened to strike (illustrating both the hecklers' power and the significance of decisions taken in Dundee). In a letter circularised to John Fergus, James Aytoun concluded,

"Whether reasonable or not it does not appear to me that there would be any propriety in attempting to stand out, the machines have decidedly failed, as put in competition with hand heckling at the late rates, when the flax-dressers become again troublesome which/

1. Edinburgh Advertiser, 23/2/1798. Manager for a heckling shop at Prinlaws wanted.
2/11/1798. Flax dressers wanted at Kirkland works.
S.R.O. CS 236/G/12/1, 1799. mentions flax dressers becoming overseers in the flax dressing Departments of Mills.

which may not be a distant period, then exertions may be used to keep them moderate by the partial use of machines."⁽¹⁾ By 1836, an efficient heckling machine had been developed and the work was soon being done by women,⁽²⁾ a fund being raised to help hecklers to emigrate.⁽³⁾ A loose wages sheet from Prinlaws Works sums up the position. For the week ending 2/9/1858, in one mill, 13 were employed in the flax-preparing department, of these, twelve were women earning 5/3d and 5/5d per week and one man on 16/-⁽⁴⁾

Before the introduction of heckling machines, entrepreneurs had attempted to control the hecklers, specifically, and the workers, generally, by a system of strict discipline. William Brown of Dundee, the early exponent of managerial techniques, visited Leeds in 1821 and was very impressed by the strict discipline at Marshall's works. These works contrasted sharply with other mills in the town, where management was lax and work inefficient. Brown was in no doubt: "The result is striking, Marshall has made hundreds of thousands, the other excepting two or three have become bankrupts and are leading their life in the midst of dust, waste, confusion and discontentment."⁽⁵⁾ At Marshall's a printed set of rules was clearly displayed and this was the policy followed by the large integrated/

1. I am indebted to Mr. Alex. Devlin, Glenrothes who found the letter from James Aytoun to Charles Arthur, 14/10/1832, amongst papers at Prinlaws.
2. The introduction of machine heckling was pioneered by Carmichael at Baxter Bros. Dundee.
3. Fergus Papers. John Fergus Ledger 1850-1852, Business Expenses.
4. Fergus Papers Wage Sheet 2/9/1858.
5. W. Brown. Management in a Scottish flax Mill p.131.

integrated Fife mills. As soon as John Fergus took over Prinlaws Mill at Leslie he put up a clear set of rules and there is every indication that at Prinlaws and Kirkland and at lesser complexes paternalist management aimed at creating a cohesive mill community guided by strict rules, both at the place of work and in the tenancy of the mill-master's cottages. (Plate 3)

Faced as they were with the problems of managing an industry under the new circumstances of power driven mass production, what did the entrepreneur achieve? What was there in the linen industry for the employees who came into the mills? Few fortunes were made amongst the earliest of the Fife entrepreneurs; Mark Stark concentrated his efforts at Kirkhill near Dalkeith, Alexander Neilson died in 1803, not a rich man, the Aytouns failed in 1803 and John Melville in 1805. Of all the early entrepreneurs, only Walter Fergus stands out. He inherited Strathore from his father who had already established himself as a landed proprietor. "The proprietor of Wester Strathore", wrote the Minister of Dysart "while he is busied in carrying on an extensive manufacture in a neighbouring parish, dedicates his leisure hours to the improvement of his estate in this."⁽¹⁾ In 1807 he increased his land by buying Stenton farm from the/

1. O.S.A. Dysart Vol XII p.508.

REGULATIONS

TO BE OBSERVED BY THE FLAX-DRESSERS EMPLOYED AT

PRINLAWS.

I.—A FINE of Five Shillings will be levied upon any person smoking tobacco, or bringing light into the Heckling Shops.

II.—Fine One Shilling for wantonly disfiguring the Births, by cutting, writing, or otherwise ; and each pane of glass broke, shall be replaced at the expence of the person who broke it.

III.—Fine One Shilling for appearing at work, or coming about the Premises, intoxicated, either by day or night.

IV.—Fine One Shilling for each person found engaged in gambling, either with dice, cards, or otherwise, in the Heckle Shops, or about the Premises.

V.—Any person offending a second time against the 1st or 3d Regulations, is liable to be dismissed from the Work, without any warning.—And every Flax-dresser continuing in employment at PRINLAWS, after this date, is considered liable to the above Regulations.

PRINLAWS, 27th November 1827.

the Earl of Leven for £6,300.⁽¹⁾ Not only did Fergus initiate developments at Kinghorn but also established the lasting connection with Prinlaws., As Provost of Kirkcaldy and partner of the Glasgow Banking Co. he paved the way for his son in politics and finance and, as the holder of a game license he showed himself to be one of the elite in the county. When he died, in September 1830, Walter Fergus left £8,000 to each of his unmarried daughters, household furnishings valued at £1,789 which included 1726 oz. of Silver plate at 5/- per oz, a cellar with 105 dozen bottles of port at 27/- per dozen, various loans including a promissory note from Charles Arthur for £6,200 with interest, 48/64ths of the ship 'Columbus' and shares in a number of insurance companies and a £16,000 shareholding in the Glasgow Banking Co; the total inventory amounting to some £29,838:18:3d.⁽²⁾ The heritable part of his estate passed to John Fergus in trust.

Common to the early entrepreneurs was a desire to hold land, which springs from their wish to improve their social standing and the rural nature of the early mills. Thus in 1808 the Earl of Leven let Belfield Farm to William Drummond, the farm previously being in the hands of Mark Stark.⁽³⁾ A year later another farm was let/

1. S.R.O. Sasines Fife, Persons 1781-1820 No. 7756.
2. S.R.O. Inventories Fife, SC 20/22/5, Walter Fergus T.D.&S.
Fergus had probably built up enough capital before the coming of power spinning to enable him to absorb the industry's early reverses. He was also careful not to commit himself too heavily at first to the new industry.
3. S.R.O. Leven & Melville Papers. GD 26/5/214.

let to William and Robert Russell, Merchants, Kirkcaldy and Thomas Anderson at Rothas field.⁽¹⁾ Another mark of social standing was election to the bench and, in 1837, the first millowners and manufacturers to join the ranks of J.Ps, were elected. The number included: John Peter, P.D. Swan, John Fergus, James Aytoun, William Millie, James Normand and George Moon, all prominent in the industry. Eminence in county affairs was not, however, typical of the Fife spinners. The indications are that many lived a simple and frugal life. In his examination for bankruptcy in 1836, James Archibald, a Kirkcaldy spinner, whose household furniture was valued at just £27 allowed his wife £1 per week for household expenses.⁽²⁾ A man like Scott of Scott and Taylor, Freuchie, existing at the margin of production (firm's assets in 1839 £2271:19:6d), possessed only £19⁽³⁾ of furniture at an inventory in 1839 whilst Charles Arthur, the large Kinghorn spinner, had household furniture worth one quarter of that of Walter Fergus.⁽⁴⁾

Turning to the employees in the early spinning mills we find opportunity for improved wages coupled with difficult working conditions. Before the coming of the power mills, large entrepreneurs gave out yarn to spin, through agents. Thus, at Cupar, Loch tells us that, Mr. James Preston deals very extensively in yarn, and employs a considerable number/

1. *ibid* GD 26/5/217.
In her book on Tullis Russell Miss Ketelbey says that "The firm has always had farming interests" p.27.
2. S.R.O. CS 231/A/1/32, James Archibald's Sequestration 1836.
3. S.R.O. CS 96/791. Scott & Taylor's Sequestration 1839.
4. S.R.O. CS 46/No. 73. March 1838, Charles Arthur's Sequestration 1837.

number of spinners all along the coast of Fife, as well as in the inland part of the county. (1) The O.S.A. for the parishes of Crail, Aberdour, Leslie and Largo mentions the wages of spinning. In all, the rate was low, averaging 1/- per spindle or approximately 2/6d per week. (2) At a time of some rural depopulation and increased productivity on the land, the spinning mills offered better wages than in farm work or part-time spinning. The increased output of yarn also increased the demand for weavers and brought higher wages to women, who were attracted into weaving (In the long term the introduction of women only helped to lower weavers' wages further). (3) The Minister of Kinghorn, an enthusiast of the early mills, said that women could now earn from 5/- to 7/6d in the mills. (4) This figure was not improved on for, in 1833, wages were reckoned to rise from 2/3d for children of 10 to 11, by annual increments of 6d per week, to between 5/- and 6/- at the age of 15. (5)

In spite of the rise of the mills, hand spinning continued in Fife (6) though, as with the growing of lint, was carried out largely for private use. In a letter to James Loch, the factor to the Sutherland Estate, Walter Fergus clearly spelt out the situation in Fife, by the ~~Eighteen~~twenties: "The spinning by machinery is brought to such/

1. Loch Vol II p.51.
2. O.S.A. Crail, IX. p.455. Aberdour, IV p.335, Leslie VI p.43, Largo IV p.539.
3. The B.O.T. welcomed the coming of power spinning "This invention of spinning mills if successful will rather be of service to the female spinner than otherwise because they can leave weaving and make more of it. NG 1/3/15, 12/2/1788. Letters of Archibald Neilson.
4. O.S.A. Kinghorn, XII p.239.
5. B.P.P. 1833 XX Factory Inquiry Commission, passim.
6. S.R.O. CS 96/1/66. Ledger of Goodsir Adamson, Cupar, 1805-1810.

such perfection producing a very superior article for the purposes of the manufacture of this and the adjacent counties that spinning by the common wheel is nearly abandoned, indeed the price is so low at which the mill spinners contract to produce yarn that it is quite ~~out of~~ the question for a poor woman to employ herself in spinning as literally she could not make by her day's working ordinary hours above a penny halfpenny sterling.

There is still, however, a considerable quantity of yarn spun by hand in the county by cottagers who sow the flax themselves and although they are miserably paid for the spinning of the yarn they omit to reckon on this part of the process knowing that upon the whole something remains for the labour required to bring the flax to this state if the yarn spun is of finer thread than that spun by machinery it will find a ready sale at the market prices⁽¹⁾

The losers in the decline of hand spinning were not spinsters but widows and elderly women unsuited for heavier work. They may have found some compensation in the increased demand for reellers and winders as the numbers of handloom weavers grew.⁽²⁾

There is no evidence that wages in the early Fife mills were paid in truck, though such payments were certainly made in Fife at the time. Token coins have been found for the Burntisland Vitriol/

1. Stafford C.R.O. K/1/3/10. Walter Fergus to James Loch 19/9/1822.
2. N.S.A. Fife, Kettle p. 108.

Vitriol Co. for the years 1796/7 and at Balgonie Iron Co. - adjacent to the flax spinning mill, a company store was opened in 1811 "The proposition of a store at the works was suggested as a source of profit to the company, each individual workman had a book of his own which was checked by the clerks at the store"⁽¹⁾

Working conditions, however, were unhealthy both in the converted and purpose-built mills. Thus ~~an~~ Prinlaws, John Melvilles' works, which Beatson called "a very great work indeed for this county",⁽²⁾ was a cramped 6 storey mill with low ceilings, 7½ feet high". "The construction of this mill is very unfavourable to health," wrote the Factory Inquiry Commissioners; luckily "Mr Fergus is now constructing a new mill, in which the working rooms will be 14 feet high."⁽³⁾

Another hazard was dust which covered the workers. Speaking factually about mill waste in 1799 James Aytoun said "it is thrown upon the floor, as soon as the children in the mill can clean themselves from it"⁽⁴⁾ The mill employees, who were mostly children between 10 and 18, worked long but irregular hours. The indications are that there was some flexibility in hours; thus, at Hospital Mill, workers would do overtime to get away for markets, Cupar races or sermons and at Blebo Mills, half days were made up for "public markets/

1. S.R.O. CS 96/203. New Balgonie Iron Co's sequestration, 1812.
2. S.R.O. Rothes Papers, GD 204/68/2. Beatson to Tait 28/3/1792.
3. B.P.P. 1833 XXI, Factory Inquiry Commission, 2nd Report, p.30.
4. S.R.O. CS 236/G 12/1 Greig v. Robertson, 1799.

markets or other amusements"⁽¹⁾ Yet, this was a period of little leisure in which children became enured to the drudgery of factory life.

According to Thomson, "Most of the mills have a person properly qualified to teach the children to read and to instruct them in the principals of Christianity," ⁽²⁾ and Prinlaws certainly advertised for a teacher in 1796. ⁽³⁾ In the field of housing too, the early entrepreneurs had to provide accommodation for their new works in rural sites. In the larger mill, full family accommodation was given and in the smaller mills such as Edenbank, Strathmiglo, bothies were provided for the single women. It was uncommon for town employers to provide housing, though James Aytoun provided some housing at Abbotshall. Though the standard of housing, as at Prinlaws was model, John Fergus even providing a refuse service, ⁽⁴⁾ tied housing could be used to keep wages down by threatening eviction. ⁽⁵⁾ Finally in the towns single girls were often forced to find accommodation in lodging houses. ⁽⁶⁾

This chapter has shown the way in which the spinning of flax by machinery came to Fife, the problems faced by entrepreneurs in choosing appropriate sites for their enterprises and the often hopeless struggle/

1. B.P.P. 1834 XX, Factory Inquiry Commission, Supplement, 1834 part II pp.47 and 59.
2. Thomson, General View of the Agriculture of Fife, p.307.
3. Edinburgh Advertiser, 29/7/1796.
4. B.P.P. 1834 XX, op.cit. p.71.
5. S.R.O. Leven & Melville Papers, GD 26/V/728, Kyd to Leven 27/12/1803.
6. Kirkcaldy Public Library, John Hutchison Papers, Letter 8/5/1830.

struggle to raise sufficient finance to build their mills, overcome the technical problems of an infant industry and maintain production in the face of the difficult war years in the first decades of the Nineteenth century. I have concluded by giving an indication of the aspirations of the employers and the condition of the employees.

A much fuller study of factory life as brought to light by the inquiries of the 1830s will be ~~made~~ ^{made} in chapter five.

CHAPTER FOUR

The Development of the Manufacturing Trade

"The linen manufacture is "more extensive, more valuable and employs a much greater number of hands than any other in the County." (1)

In the final chapters the spinning and weaving trades will be considered, firstly in the era of the Factory Inquiry Commission and, secondly, in the period of the U.S. Civil War and its aftermath. To trace the developments of the industry in Nineteenth century Fife, it is necessary to outline the structure of the linen manufacturing trade at the end of the Eighteenth century and to point out the directions the industry was taking, notably in the important regional centres, Dunfermline and Kirkealdy, which dominated the trade. The questions to be asked are these - on what scale was business conducted, what type of linen goods were being produced in Fife, where did the raw materials come from and what happened to the finished goods? To these questions must be added the important question, what was the condition of the handloom weavers in the period before the celebrated "Decline of the Handloom Weaver?" (2)

The/

1. Thomson, General view of the Agriculture of Fife. p.303.
2. If a parallel were to be chosen to the Fife Linen Trade of this period it might be the cloth trade of the West of England (Mann, J. de L. The cloth industry of the West of England 1640-1880. Oxford 1971). Both trades were very dependent on waterpowered spinning, using imported raw materials and were competing with cheaper goods made elsewhere. The scale of business and marketing techniques were similar as was the situation of the labour force. Both trades were competing with numerically superior branches of the same trade in other parts of the country.

The ~~Seventeen~~^{nineteen}ties was a period of progress throughout the Fife economy stimulated by the industrial developments in coal, iron and textiles, the increase of employment on the roads and in the more intensive agricultural system. The increase in activity which made agricultural workers "scarce as well as dear" (1) was echoed in the other sectors of the economy. The Minister of Kinghorn summed up the beneficial effects thus "Young women, who before were not able to earn by the needle, or by the knitting of stockings, or by the spinning of flax, above 1/6 or 2/- in the week can now easily earn 5/- or 7/6 in the same space of time. Little girls between 8 and 12 years of age, who before were a burden to their fathers and mothers, by engaging at these works, are not only able to support themselves but to assist their aged and indigent parents. The boys who before thought of nothing but the sea, or of running about idle, or which was little better, of running about the country at the horses' heels, as horse hirers' servants have now generally turned their attention to the loom, and bind themselves apprentices to the weavers, such are the effects of capital well employed." (2)

By this time there were few independent weavers, nearly all were employed by local manufacturers or by the agents of large businesses in Kirkcaldy, Dunfermline and Dundee, only in such towns as Newburgh were there a significant number of independent weavers who sold their goods to merchants who either purchased on their own account or on commission for London/

1. O.S.A. Auchtertool. VIII p.115.
2. O.S.A. Kinghorn XII p.239.

London merchants. But by the time of the New Statistical Account Newburgh Weavers, too, had become manufacturing employees. In 1836 13 Newburgh manufacturers were giving out webs in the town and surrounding parishes. (1) In 1855 the death occurred of William Anderson junior, the largest Newburgh manufacturer, who was by then employing up to 1500 weavers. (2)

The general tendency throughout the period was for the regional centres of Dundee, Dumfries and Kirkcaldy to increase their grip on the trade. Thus Dundee became the main supplier for the Tayport area, and the influence of Dundee manufacturers stretched right down the coast to Kilconquhar. (3) By 1793 there were some 2000 looms in the Kirkcaldy area, producing £110,000 worth of goods, a figure which had grown tenfold in the fifty years since 1743. (4) stimulated largely by the efforts of John Fergus and Sons who had opened up the London market benefitting from Scotland's lower labour costs and Manchester's change from Ticks and Checks to finer goods. Thus Loch commented of Kirkcaldy's output in 1778 "A great part of the checks and tykes go to England, and the demand is brisk. Messrs John and George Fergus have above 40 of the above looms, and a large bleachfield for bleaching yarn for themselves and others" (5) At the time of the O.S.A. weavers are recorded/

1. N.S.A. Fife p.76.

2. F.H. 13/12/1855.

3. N.S.A. Fife pp 85 and 332.

4. O.S.A. Kirkcaldy pp 28 and 29. The Minister, however believed that development had been more rapid in Pathhead and Abbotshall, Kirkcaldy's suburbs, uninhibited by the corporation of the Royal Burgh ibid p.35.

5. Loch op cit vol II p.40.

recorded as working for Kirkcaldy manufacturers in Lochgelly, Kinglassie, Auchtertool and Wemyss.⁽¹⁾ The 3 main employers in Abbotshall parish employed two to three hundred looms within the parish and "many in neighbouring parishes"⁽²⁾ By the time of the N.S.A. the 8 principal Kirkcaldy manufacturers were estimated to be controlling 1100 weavers, 9/10ths of whom were outside the parish,⁽³⁾ whilst Dysart manufacturers were employing weavers in parishes as spread out as Ceres, Strathmiglo and Perth.⁽⁴⁾ The majority of these weavers were only employed indirectly by the large manufacturers, the work being given out by Local Agents, who were normally paid 5% of the cost of weaving, warping and carriage.⁽⁵⁾ Either the agent would produce a traditional product of the area, or a new product in order to increase the merchant's range of goods as in the case of James Finlay, making Huckaback in Leslie for Walter Fergus,⁽⁶⁾ or the agent might introduce the production of the traditional goods of the regional centre in his area as in the case of James Troup who began making Dunfermline Damask in Strathmiglo; soon 2/3rds of the Strathmiglo weavers were producing Damask goods.⁽⁷⁾

By the time of the N.S.A. Weavers were working for Dunfermline manufacturers/

1. O.S.A. I p 459, IV p.502, VIII p.115, XVI p.520
2. O.S.A. IV 189.
3. N.S.A. Fife p.754
4. N.S.O. Fife P.138.
5. Kirkcaldy Technical College, Journal of Walter Fergus 1/1/1813 - 31/12/1825, 28/2/1815.
6. Ibid.
7. F.H. 27/3/1856.

manufacturers in the parishes of Torryburn, Carnock, Culross, Inverkeithing, Kinross, Auchtermuchty, Leslie and Strathmiglo. In 1815 the Scots Magazine could describe Dunfermline as, "long distinguished for its table linen, in no other place within the United Kingdom, is this branch of trade conducted on so extensive a scale". (1) The development, however, was slow. Pennant in 1776 believed that Dunfermline products employed about 1000 looms in the town and neighbourhood making £40,000 worth of goods per year, (2) but as few as 18 looms were for Damask, 3 of these being employed by Mark Stark. (3) The quality too was poor, the Board of Trustees being disappointed at the quality of goods sent to London. The Board expressed its surprise at "such wretched goods" especially as the worst were made by Mark Stark "who is considered to be a man of character." (4) Between 1792 and 1814 the town's output increased from £50 to £60 thousand worth of goods, (5) to some £90 to £100 thousand, although the number of weavers within the town remained similar. (6) Between then and 1819 output rose to £120,000. (7) as the quality of Dunfermline design began to improve. By 1818 the Board of Trustees found that "The variety and improvement of the table linen manufacture in Dunfermline were particularly striking". (8)

The/

1. Scots Magazine vol 77 1815 p.418.
2. Pennant op cit. p. 213 Henderson op cit p.509 £45,750 in 1780.
3. Henderson p.505.
4. S.R.O. B.O.T. NG 1/3/14 8/4/1784.
5. O.S.A. Dunfermline XIII p.432.
6. Henderson p.585.
7. Ibid p.590.
8. S.R.O. B.O.T. NG 1/1/34 24/11/1818.

The first decades of the Nineteenth century also saw increased amounts of work given out for Glasgow manufacturers such as Robert Jeffrey and Sons, later owners of Ballindalloch Mills,⁽¹⁾ thus involving the Fife weavers in the same competitive market as the West. As outside influence increased, so local centres declined, such as Kennoway where there were no local employers by the time of the N.S.A. or Auchtermuchty, which was involved in some severe business failures at the end of the Napoleonic Wars. "In the year 1817, a blight came over the manufacturing interest in this parish, from which it has never recovered", wrote the Minister in the N.S.A. By then the weavers were being employed by Manufacturers from Glasgow, Dundee and Aberdeen.⁽²⁾ Central parishes such as Falkland were by then getting their work from both North and South, from Newburgh, Kettle and Kirkcaldy.⁽³⁾ Finally there were some centres which maintained or gained an element of control such as Cupar, or Kettle where window Holland was produced⁽⁴⁾ and Strathmiglo where James Troup, who had begun Damask weaving, as an agent, set up his own business and later set up one of the first powerloom businesses in the county.⁽⁵⁾ Overall, as the strength of the regional centres increased, goods which had been typical products of the centres alone, became diffused throughout the county and what had been specifically local goods became typical products over much of the county, Dunfermline itself maintained its prominence in table linen whilst Kirkcaldy greatly increased its range of products in the face of growing competition for its traditional Ticks and Checks. As the relative/

1. S.R.O. Robert Kirks Sequestration 1835. A son, John Jeffrey set up permanently in Fife, building a powerloom Works at Balsanney, Kirkcaldy and buying Largo mansion house.
2. N.S.A. Fife p.784
3. Ibid p.936.
4. R. Stocks & Co. Robert Stocks letter bk. 2/8/1819 - Letters about holland manufacture
5. N.S.A. p.779; S.R.D. CS/280/13/79 James Troup's Sequestration 1848.

relative strength of an area's output depended on the manufacturers' ability to open new markets or produce new products in the face of this mounting competition it is necessary to understand the capital structure of the industry before considering the nature of Fife's output in greater detail.

An important distinction can be drawn between the trade of the Cupar area and that of Kirkcaldy, where the length of the process and the irregular sale of the goods, demanded a significant amount of capital to tide the manufacturer over from the purchase of his yarns to the eventual receipt of payment for his goods. Commentators remarked on the opulence of the Kirkcaldy manufacturers employing from 50 to 500 looms. (1) Quite the opposite was the case of Cupar as George Moon, the prominent spinner at Russell Mill pointed out. "There is probably less capital in Cupar and its immediate vicinity, in the Linen trade, than in any other part of Scotland; and it arises from this circumstance, that the way in which the trade is carried on, requires little or no capital; and is reduced so low in profits that no capitalist would engage in it" (2) The Cupar trade, therefore, continued to be conducted by small firms who sold their output to Merchants, whilst the influence of Kirkcaldy merchants who consigned goods on their own account began to grow through Fife. Thus by the ^{twenties} 1820s there was said to be only one extensive capitalist in Brown Linen (the main product of North Fife) who bought up goods from the small men in/

1. S.R.O. JC/297 Memorial for John McIntosh 1798.

2. S.R.O. B.O.T. NG 1/60/78. Evidence of George Moon to Select Committee of the House of Lords on Changes in the Linen Regulations 1823.

in Fife and Angus, whilst there were in the Kirkcaldy Tick trade "a number of very respectable men of considerable capital" (1)

The industry comprised both small businesses such as that of David Melville, the Cupar Stampmaster who failed in 1803 and was at that time employing 20 weavers, all but 4 of whom owned their own looms (2) as well as large capital enterprises such as that of John Fergus and Sons. At one end of the scale were men with little or no capital, who might still have significant businesses in their area. John Inglis, the principal Dairsie manufacturer at the time of the H.S.A. began business with £100. (3) Some like John Smith at Hilton ^{he} of Kettle, began in 1842 with no capital, ~~he~~ lived with his father, and conducted his business from his father's premises. With a mere £21. 1. 0d of equipment he had admitted liabilities of £3587 at his failure in 1857. (4) At the end of the handloom period the trustee on a Freuchie bankrupt's estate reported that failure had arisen from "Losses in trade, chiefly, caused by a total incapacity on his part to take charge or direction or oversight of such an extent of business as he was aiming to do, apparently with a very limited or no capital at all, (his business books being a perfect nullity)". (5)

At/

1. Ibid, evidence of David Allan, Linen factor, London. The largest Manufacturer in North Fife was William Anderson of Newburgh.
2. S.R.O. CS 96/707 David Melville's Sequestration, 1803.
3. S.R.O. CS 280/11/26. John Inglis' Sequestration 1848.
4. S.R.O. CS 318/2/184. John Smith's Sequestration 1857.
5. S.R.O. CS 318/6/52. James Cameron's Sequestration 1860.

At the other end of the scale were firms which had been built up from the middle of the eighteenth century. At a valuation of the firm's property in March 1796, the houses, warehouses and goods of John Fergus and Son were valued at £12,700. ⁽¹⁾ In 1823, the company's warehouse and counting room alone were valued at £1500 in the journal of Walter Fergus. ⁽²⁾ Another large firm was that of the Millies in Pathhead. At a contract of copartnery in 1777 between David Millie Senior and his son, David, Junior, the father advanced the son £2,000 "as a capital to trade with and be stocked into the copartnership". He also put ^{a further} £2000 of his own in, made up of "an inventory and valuation and balance of the stock in trade belonging to the said David Millie, Senior, the same at the term of Whitsunday last 1777. 9.11d. Profit and Loss were to be shared equally. ⁽³⁾ The business must have flourished, perhaps aided by the fulfilling of the clause in the contract stating "The said David Millie Junior engaged to be at the trouble of keeping all the books and accounts and regularly to inventory, value and balance the stock belonging to, and debts due by the Company, at the term of Whitsunday yearly", ⁽⁴⁾ for the capital was greatly built up. When William Millie, the last surviving partner of D. & W. Millie failed in/

1. Guildhall Library, GH 11937/14. Sun Insurance policy 653334. 8/3/1796.
2. Kirkcaldy Technical College. Fergus Papers. Walter Fergus journal 1813-1825, 11/11/1823.
3. Kirkcaldy Public Library. Petition of David Millie appendix 2p.3
4. Ibid p.5.

in 1851, he stated that he had been in business for about 40 years and that when he had started out in business he had a capital of £10,000. (1)

An examination of extant insurance records, manufacturer's inventories and the inventories of sequestrated estates reveal the importance of floating capital in the domestic handloom era and the relatively small amount of fixed capital equipment needed to start a business. The case of John Melville and son, Dysart, clearly reveals the contrast between fixed and floating capital in the industry, and suggests the high cost of entering the capital-intensive power-spinning industry in comparison with the hand-loom trade. The evidence, however, will show that as in the spinning industry, the important feature of business finance was not the amount of capital needed to begin a project but the entrepreneur's ability to raise a mortgage and obtain credit, coupled with sufficient capital to overcome poor trading periods.

John/

1. S.R.O. CS 280/38/99. D. & W. Millies sequestration 1851.

John Melville and Son Dysart: Sun Insurance Policy of 27/7/1795. (1)

<u>North Street, Dysart</u>		<u>Prinlaws Mill near Leslie</u>	
John Melvilles Dwelling house	£100	Cotton and flax mill	£1100
Household goods therein	70	Millwright's work therein	200
Wearing apparel	30	Clockmaker's work therein	400
House adjoining used as Heckling house	100	Stock therein	300
Weaving House	70	House, Smith and Wright's shop under 1 roof	100
Stock and utensils therein	30	Stock and utensils therein	100
Warehouse with cellars	400	Dyehouse	300
Stock and utensils therein	1500	Stock and utensils therein	100
		Dyehouse	120
		Stock and utensils therein	30
		Dyehouse	100
		Stock and utensils therein	50
		Two houses	70
		Dyehouse	30
	<hr/> £2300		<hr/> £3000

Total: £5,300

The valuation of John Fergus and Son's business in the Linktown of Abbotshall (Kirkealdy) in March 1796 further emphasises the importance of the item "stock and utensils".

John/

1. Guildhall Library Sun GH 11937/10 Policy 64359 27 July 1795.

John Fergus and Son, Manufacturers, KirkcaldySea Insurance Policy of 8/3/1796

Houses communicating in Linktown		200
Stocks and utensils therein		3600
House, South side of High Street		200
Stock and utensils therein		2500
Spinning Mill at Kinghorn, (cotton first class)	600)	
millwright's work	100)	
clockmaker's work	300)	1600
Stock	600)	
Walter Fergus dwelling house at Linktown		1000
Household goods therein		400
Wearing apparel		75
China and glass		75
Plate		50
House near		50
Stock and utensils therein		2500
	Total	<u>£12700</u>

A study of the inventory made by Robert Stocks, a rapidly expanding manufacturer in the Link^Ktown, employing about 100 weavers in 1812,⁽¹⁾ breaks the business down further, describing the various stocks and utensils. The inventory was made in 1813 before bringing his brother into a 10-year partnership with him.

Robert/

1. Robert Stocks and Sons, Robert Stocks manufacturing book 1805 to 1813. Stocks gave out 1365 webs in 1812, each of which took about one month to weave.

Robert Stock's Capital 31/5/1813 (1)

Yarns and webs warped and in looms	£2,102. 11. 1d
Two pieces of check omitted	7. 17. 6
Other yarns	364 . 12. 0
Bleached Irish yarn	1. 0. 4
Warping mill	8. 0. 4
Bobbins, 964 @ 1d	4. 0. 4
Two lapping tables	2. 6. 0
Reel for measuring webs	1. 10. 0
Web press	8. 0. 0
Packing frame	0. 10. 0
Two writing desks	5. 0. 0
Iron chest	5. 0. 0
Warehouse shelves and curtains	3. 0. 0
Weaver's house in Westbridge	170. 0. 0
Weaver's house in Links	130. 0. 0
Warehouse	220. 0. 0

Whilst the stock of yarn and webs was worth over £2,000, the actual weaving utensils were valued at approximately £40. Inventories of sequestrated estates throughout the first half of the Nineteenth century reveal this valuation as typical - Stocks was unusual in that he owned £300 worth of houses where his own weavers lived, in order to tie them to him. A typical warehouse had to have a number of warping mills to prepare the warped chains for giving out, bobbins for putting yarn on, tables on which cloth could be folded and measured and equipment for/

1. Robert Stocks & Co., Day Book No. I 7/1/1811 - 30/12/1816;
31/5/1813

for finishing the cloth for sale. The warehouse usually contained the rudiments of an office, a desk, chairs and writing equipment. The equipment might be valued at as little as £20 or £30 ⁽¹⁾ or in some cases such as D. & W. Millie, Pathhead, as much as £137. 16.

where the finishing equipment was more sophisticated. Here there was a double-action hydraulic press in the packing room valued at £50 and a calender with gearing at £40. ⁽²⁾ The fact that the roup roll of a sequestrated estate's assets was often greater than the value put on the equipment by the official valuator, indicates that the machinery was given the going value and not a knockdown valuation. ⁽³⁾ All the figures, however, suggest that the bulk of any manufacturer's money was tied up in goods in process. Thus, James Hutchison of East Wemyss, where the equipment in the warehouse was valued at £121.18. 3, had on hand at his failure in 1839, yarns to the value of £2007.12.5d and webs worth £2150.13. 4d; this was represented by 503 webs in the hands of nine different agents in Dubbyside (Leven), Kennoway, Largo, East Wemyss, Gallatown (Kirkcaldy), Craigrothie and Earlsferry - all but 50 of the webs being outside East Wemyss. ⁽⁴⁾ Lastly in this section/

1. S.R.O. CS 280/42/90 Henry Glass, manufacturer Links' sequestration 1855. - equipment valued at £24.11. 3d.
2. S.R.O. CS 280/18/11 A. Selraig & Co. 1841 - Warehouse furniture £34.14
3. S.R.O. CS 280/38/99. D. & W. Millies Sequestration 1851.
3. S.R.O. CS 96/315. Alexander's Warehouse equipment valued at £45, was eagerly bought up by fellow manufacturers at the roup of his property, no doubt assisted by the liberal quantities of whisky which the trustee provided for these occasions and recorded faithfully in his intromissions.
4. S.R.O. CS 280/2/2. James Hutchison's, E. Wemyss, sequestration 1840.

section the much smaller manufacturers Alexander Selorig and Co. had stocks, mostly webs of £1285.17. 3d, warehouse furniture of £34.14 and household furniture of £113.19. 4d, at their failure in 1841.⁽¹⁾ The evidence shows that the cost of entering the handloom trade, the actual physical cost of buying the equipment necessary for carrying on the trade - the warehouse could be rented or mortgaged - was very small. The scale of an individual or a partnership's activities depended on the ability to raise enough capital to buy yarn, pay weavers and finance sales.

II.

Turning to the provision of capital to the weaving trade, where the spinners depended largely on credit secured on their mills and machinery, the manufacturer depended much more on credit from suppliers and advances from merchants to whom goods were consigned, secured, more loosely, on the value of the goods themselves. The report of the accountant in the process of Multiple Pounding brought against the Cupar firm of Goodsir and Adamson in 1813 shows how the small Cupar firm carried on its business. Goodsir had gone to Jamaica as a young man; when he later returned to Cupar he was encouraged by Adamson to set up in business with him "though he had no particular/

1. S.R.O. CS 280/18/11. Alexander Selorig's sequestration 1841. Having failed in 1837, Selorig recommenced business as A. Selorig and Co. so that as undischarged bankrupt, he might ward off his creditors.

particular knowledge of the business"⁽¹⁾ The firm "carried on business to a considerable extent, partly by interchanging bills with other manufacturers in the same line, but chiefly by occasional cash accommodations, and credit accounts with three different banks in the neighbourhood, from a married friend, and relative of the whole several partners, Mr. John Annan".⁽²⁾

As with the spinning trade, the main functions of banks was the discounting of bills, which, according to the Handloom Weavers' Commission, they were always willing to grant, because there was a security vested in the goods consigned.⁽³⁾ The banks could suffer when the return on goods consigned was less than the advance given or where the merchant to whom the goods were consigned failed himself. In nearly every failure, as with the spinning trade, the brunt of the burden was born by the banks, notably in bills due to spinners. Banking facilities had expanded from the founding of a branch of the Bank of Scotland in Kirkcaldy, in 1785,⁽⁴⁾ the founding of local banks such as the Fife Banking Co. in 1802,⁽⁵⁾ and the opening of the only branch of the Glasgow Banking Co. in Kirkcaldy in 1810⁽⁶⁾ a bank/

1. S.R.O. CS 251/3432. Report of the Accountant in the process of M.P. Goodsir & Adamson, 1813.
2. Ibid.
3. BPP 1834 X. Report of the Select Committee on Handloom Weavers p.123
4. O.S.A. Kirkcaldy XVIII p.37.
5. C.W. Boase. Century of Banking in Dundee p.334 Bank had 60 shares of £50 each.
6. Rait. History of the Union Bank p.202.

bank much used by Kirkcaldy manufacturers including the Fergus family, Robert Stocks and Michael Nairn. Indeed, the extent of credit was such that the Minister of Dysart believed it to be overgenerous.⁽¹⁾ Certainly the evidence of bankruptcy records suggests that it was often easy for men of little capital, having failed to compose with their creditors, gain new credit and guarantors and proceed to further bankruptcy and composition.⁽²⁾ Evidence, too, was brought forward by the Handloom Weavers' Commissioners that it was the abundance of credit and advances from agents which allowed the small, price and wage cutting manufacturer to survive.⁽³⁾

Initially, the prospective manufacturer looked to his own savings and those of his family. Thus Charles Hunt of Dunfermline, a partner of John and James Spence, Dunfermline, who failed in 1817, owed £1442 to his wife and four children.⁽⁴⁾ William Stark of Auchtermuchty, who failed in 1819, began with £840 which his father had given him; his uncle and brother also stood caution for a bond of £500 granted by the British Linen Company.⁽⁵⁾ Nor was money borrowed only from parents and children, Henry Glass, manufacturer in the Linktown who failed in 1855 borrowed £50 from his cousin, a nurseryman/

1. O.S.A. Dysart XII p.512.
2. The whole question of business failure, the treatment and subsequent history of bankrupts will be fully dealt with in Chapter 5.
3. B.P.P. 1834 X Report of the Select Committee on Handloom Weavers p.55.
4. S.R.O. CS 44 Hunt 26/11/1824. Charles Hunt's sequestration 1817.
5. S.R.O. CS 96/1130. William Stark's sequestration 1819.

nurserymen in Peebles in 1838 and in 1840 was lent £100 by his mother-in-law.⁽¹⁾

Neither was it only men who failed who depended on their families. Michael Nairn (the floorcloth pioneer) borrowed £400 from his father in May 1840 and records the renewal of the loan thus in 1841 "Bills payable, my father's pro. note at four months from the 1st £400".⁽²⁾

There are also cases of borrowers against inheritable income failing, as in the case of Walter Swayne of Dysart who failed in 1821, owing his brother-in-law James Normand, tertius, £805, George Swayne in London £1083 and the Estate of James Swayne £1103.⁽³⁾

Businessmen could, too, depend on their friends as in the case of Michael Nairn who received £300 from P.D. Swan, the Kirkcaldy spinner in 1841, and, ironically for a man who himself had earlier failed, £278 from the Abbotshall spinner James Aytoun.⁽⁴⁾

In the case of John Bremner who started business as a canvas manufacturer in Kirkcaldy in 1828 he had no capital but "his friends lent him their name for his accommodation"⁽⁵⁾

In Chapter Three it was said that spinners often sold their yarn on credit. George Moon backs up this statement with the remark "Even those people in Cupar who I knew have no capital, I have no/

1. S.R.O. CS 280/42/90. Henry Glass' sequestration 1855.
2. Kirkcaldy Museum, Michael Nairn, cash book No. 4. 1840-1848. 2/5/1840; 4/1/1841.
3. S.R.O. CS 44 Swayne 23/6/1824. W. Swayne's sequestration 1821.
4. Kirkcaldy Museum. M. Nairn cash book No. 4 4/4/1841 and 8/9/1840.
5. S.R.O. CS 280/18/3. John Bremner's sequestration 1842.

no hesitation in trusting them with thirty, forty or fifty pounds, or upwards for three months." (1) Credit was given not only by the local spinners but those of Leeds and Ireland who began to play an increasing part in the Fife trade, as well as the cotton spinners of Glasgow who provided the yarn for Fife's mixed goods.

The main credit providers to the Fife manufacturers, who sold on consignment, were the merchants to whom their output was sent. By buying up the North Fife output for cash the merchants were also able to allow these men to survive without capital to finance the sale of their output. By their nature, London merchants had to be men of considerable capital. Thus Thomas James of Moore James and Co. London Linen drapers of Cheapside told the Select Committee on Manufactures, Commerce and Shipping, that he sent his warehousemen out as buyers to the manufacturing districts who purchased the goods for cash monthly, whilst he himself gave six months credit to the drapers. (2) At their failure many Fife firms had large advances from London houses, sometimes far greater than the value of the consignments as in the case of Charles Hunt who owned one London firm £2463/

1. S.R.O. B.O.T. NG 1/60/78. Select Committee of House of Lords on changes in the Linen Regulations 1823. Evidence of George Moon, Russell Mill. Perhaps if he had been a little less trustworthy he would not himself have died a bankrupt in 1843. Unfortunately, the sederunt book in his sequestration has not survived.
2. B.F.P. 1833 vol VI Select Committee on Manufacturers, Commerce and Shipping p.87.

£2463 in this way. (1)

Much trade, too, was done with Glasgow and it was common for Glasgow merchants to provide advances and accommodation. Thus Robert Stocks wrote to Dennistoun Buchanan and Co. that he wanted £700 on account of checks sent them, as Stocks had urgent payments to make. (2)

In 1827 Stocks wrote to another of his main consignees, N. & S. Caw, Glasgow, "Being rather short of funds..... we have taken the liberty to value on you for £170 at three months from this date which we hope you will honour with your acceptance, and when at maturity we shall provide for the amount should you not have funds of ours to meet it". (3)

In the south, as Manchester increased as a textile marketing centre, so the amount of goods sent there and also the extent of Manchester credit increased. A. Selcraig for instance of Dysart who had been lent £700 by Daniel Broadhurst and Sons, was owing them £1528 in bills drawn on them at his failure. (4)

Similarly in the North, as Dundee expanded as the main textile centre of the East Coast, so it became more important, not only as a supplier of raw materials, but as a receiver of manufactured goods and provider of advances. (5)

Increasingly/

1. S.R.O. Charles Hunt's sequestration 1817 CS44 Hunt 26/11/1824.
2. Robert Stocks and Co. Letter book. Robert Stocks to Dennistoun Buchanan & Co. 29/8/1820.
3. Ibid Stocks to N. & S. Caw, Glasgow 7/3/1827.
4. S.R.O. CS 280/18/11. Alexander Selcraig's sequestration 1841.
5. S.R.O. CS 279/2549. David Scott of Craigrothie's sequestration 1851.

Increasingly combining the roles of suppliers of yarn and providers of credit were the bleachers who increased their businesses by speculating in yarns as well as merely bleaching on commission. The bleachers also found that they were able to advance money on the security of goods sent to them for bleaching for they were able to establish a lien over the goods in case of the consignor's failure. In some cases a large proportion of a firm's debts were to bleachers for yarns purchased; thus in the case of Alexander Salorig of Dysart, of the £2952 which he owed his creditors, £433 was to John Smith, bleacher at Cabbagehall and ^aThoms Walker, bleacher at Strathmiglo, both for yarn. Charles Hunt of Dunfermline owed William Haig of Dollarfield £1108, (1) whilst James Lyell a Newburgh manufacturer was provided with advances by W.S. Turnbull of Huntingtower on goods sent to the bleachfield and Turnbull kept the finished goods till a market could be found for them and then invoiced them from the bleachfield. (2) These examples show that in the manufacturing trade as well as in spinning the supply of credit was the mainspring of survival.

As in the spinning trade it was possible, in the early years, to/

1. S.R.O. CS 44 Hunt 26/11/1824. Hunt's sequestration 1817.
2. S.R.O. CS 280/13/43, James Lyells sequestration 1849.

to rise into the manufacturing class, either by saving, or by starting as an agent for a manufacturer or by rising within a larger firm. In the period of growth from 1790, some master weavers became manufacturers; thus G. & J. Thomson of Auchtermuchty were the sons of a weaver and described themselves as "bred to the loom", their capital being their earnings "and what our father was able to give us"⁽¹⁾ James Hutchison of East Wemyss, lived in a house which had been bought by his father, a weaver, and his mother in 1774. Disposed to their son David, a manufacturer, in 1810, James had inherited the property in 1827.⁽²⁾ An obituary notice to James Kerr, of Middlebank, Dunfermline, a successful manufacturer and banker in the town, records that, "He was the architect of his own fortune having inherited nothing from his parents."⁽³⁾ Other well-known manufacturers and formerly agents who later rose to ownership of powerloom mills included Robert Speedie of Kirkcaldy and Walter Lumsden of Freuchie, who was an agent for Thomas Chalmers of Auchtermuchty before 1811.⁽⁴⁾ James Troup, who built up the family Damask weaving business in Strathmiglo, began as a manufacturing agent in/

1. S.R.O. CS 318/5/344. G. & J. Thomson Auchtermuchty sequestration 1857. At the bottom end of the scale there can have been little difference between a large-scale master weaver and a small manufacturer. The essential difference was that the manufacturer provided the raw material and sold the finished product. The weaver was an employee.
2. S.R.O. CS 280/2/2. James Hutchisons's sequestration 1839.
3. S.R.O. CS 96/1210. Dunfermline Public Library, Birrell's scrapbooks - notice of James Kerr's obituary.
4. S.R.O. Report in the M.P. Thomas Chalmers and Co. Auchtermuchty 1826.

in 1824 "I had at that time a trifling capital", he said at his examination for bankruptcy in 1848. ⁽¹⁾ In other cases a small manufacturer such as Goodsir and Adamson of Cupar, might act as agents for a larger firm as well as doing business on their own account. ⁽²⁾

Again like the spinning trade, it was possible for manufacturers to rent premises and accommodation - Andrew Selorig in Dysart rented both his house and warehouse; ⁽³⁾ others such as Michael Nairn lived in rented accommodation. ⁽⁴⁾ When manufacturers failed they often leased their premises back from their creditors or from those holding bonds over their property. Other firms with little capital or which were in difficulty could weave on hire to a spinner or another manufacturer; they merely made up the yarn supplied to them and returned the finished cloth, acting as agents for the merchant. ⁽⁵⁾ Finally, manufacturers could buy up weaving utensils and stock at the frequent rousps of bankrupts' property and the appearance of well-known names such as Robert Speedie and Michael Nairn on roup rolls suggest that manufacturers were always ready to buy up second-hand equipment/

1. S.R.O. CS 280/13/79 James Troup's sequestration 1848.
2. S.R.O. CS 251/3432 Thomas Chalmers' M.P. op cit; Ledger of Goodsir and Adamson 1805-1810 CS 96/1166.
3. S.R.O. Selorig's sequestration op cit.
4. Kirkcaldy Museum. M. Nairn Cash Book No. 4 11/11/1841. The rent was £16 per year. John Inglis at Dairsie, rented his house for £6:10 per year. CS 280/11/26.
5. Firms once sequestrated often recommenced in this way, such as Troup at Strathmiglo, George Birrell, Dunfermline. Others might be driven down where the contract with the supplier involved them in a loss, the cost of production being greater than the commission as was the case of Henry Glass, Links, failed 1856, S.R.O. CS 280/42/90.

equipment to enlarge their business. (1) The evidence shows that manufacturers raised their funds from the same type of source, but that the emphasis was different, the spinners raising funds on the security of their fixed capital, the manufacturers gaining advances on their goods in the hands of merchants and bleachers.

III

It is now necessary to examine the changing products of the Fife industry in the light of the capital structure which I have outlined above. At the end of the eighteenth century different areas each had their broadly defined products. Thomson in 1800 said that Osnaburghs, Silesias (or Brown Linens) and plain linen for shirting and domestic use were made in great quantities in Auchtermuchty, Falkland, Cupar, Kettle, Strathmiglo, Leslie, Markinch, Kennoway, Leven, Largo and East Wemyss. (2) The Secretary to the Board of Trustees about the same time observed that Silesias were mostly made in Perthshire, Diapers by the yard and in table cloths varying from 2/4ths to 10/4ths wide were made chiefly in Dunfermline whilst Checks and Ticks were largely produced in Kirkcaldy and Dysart; "all the finer table linen such as Damask and fine Diaper, and fine plain linen from 1/10d to 5/- per yard is best made at Edinburgh and is chiefly disposed of for home consumption." (3) An inventory of goods sent by Mark Stark and William Adie to Manchester, suggests the coarse quality/

1. S.R.O. Selcraig's sequestration op cit.
2. Thomson, General view of the Agriculture of Fife p.303.
3. S.R.O. B.O.T. NG 1/3/17 24/10/1795.

quality of the Dunfermline goods, comprising Huckaback, Dornock and Birdseye webs from $24\frac{1}{2}$ to 30 yards ranging in price from $6\frac{1}{2}$ d to 10d per yard. The table cloths ranged in price from 18/- per dozen to 58/- for 7/4th Diaper, prices much lower than for Edinburgh goods. (1)

The O.S.A. confirms the impression of area goods within the Fife economy, though by the 1790s new products were beginning to appear. Such parishes as Cupar produced coarse linens, Buckrams, glazed linens and Silesias (2) and coarse goods are recorded in Kennoway, Falkland and the East Neuk. (3) Kirkcaldy was producing Ticks, Checks, Stripes and some plain linen whilst Dysart only records Ticks and Checks. (4) However, in the Cupar area, Osnaburg was a relatively new product, Fife stampmasters having been instructed by the Board of Trustees to go to Dundee, the centre of the trade, in order to learn the quality of Osnaburgs which were fit for stamping. (5) In Kirkcaldy one Alexander Bonnar had petitioned the Trustees for a grant for his new method of weaving cotton Demy as early as 1773 (6) and the O.S.A. has Leslie producing plain/

1. S.R.O. CS 238/S/5/30. Mark Stark and Co. Dunfermline, v. Thomas Waring, Manchester.
2. O.S.A. Cupar XVII p.144.
3. O.S.A. Kennoway XIII p.123. Falkland IV p.443, Crail IX 439.
4. O.S.A. Kirkcaldy XVIII p.27 Dysart XII p.511.
5. S.R.O. B.O.T. NG 1/3/15. 27/10/1780.
6. S.R.O. B.O.T. NG 1/1/19. 28/7/1773.

plain sheeting and cotton Checks, whilst Markinch was said to have changed from Brown Linen to Ticks and Checks. (1) The Kirkland Works on the Leven was producing Ticks by the turn of the century. (2) and Goodsir and Adamson of Cupar are recorded as making Ticks, Checks and Bengals in Cupar in 1811, though their main output remained coarse goods, 2531 Silesia, Britannia and Osnaburg webs being sent by the firm to one Glasgow house between October 1810 and March 1813. (3) There were also new goods to Fife such as Canvas, which began to be made in Kirkealdy from the beginning of the Nineteenth century. (4) The introduction of Canvas was significant in that it was the base for the later highly-important floor cloth and, subsequently, the Linoleum trade, whilst the size of looms, which became necessary for sail and floor cloth making, were such that weavers could not afford them and the goods were from the start made under factory conditions. Leading manufacturers such as Walter Fergus had Canvas looms, 30 of which he sold in 1825, (5) and in 1828 John Bremner (6) set up a Canvas loom factory as did the more significant Michael Nairn in the Coal Wynd in the same year. (7)

By/

1. O.S.A. Leslie VI p.43 Markinch XII p.534.
2. S.R.O. B.O.T. NG 1/3/18. 10/11/1801.
3. CS 251/3432, Report in the MP - Goodsir and Adamson.
4. Muir, Nairns of Kirkealdy p.6.
5. S.R.O. B.O.T. NG 60/78 op cit p.18. Walter Fergus journal 4/3/1825.
6. S.R.O. CS 280/18/3 John Bremner's sequestration 1842.
7. Muir op cit p.7.

By 1820 significant changes had ^{occurred} ~~developed~~ in the composition of Fife's output. In his evidence to the Select Committee on the Changes in the Linen Regulations in June 1823, Walter Fergus suggested that there had been a general adoption of Dundee goods in the county, encouraged on the one hand by the output of the Fife Spinning Mills, which was most suited for coarse products, and on the other by the growing competition with cotton which was making Kirkcaldy's Checks uneconomical. ⁽¹⁾ By 1817 Fergus was already making Dowlas for shipment to Gibraltar. ⁽²⁾ The detailed returns of the Board of Trustees for the years 1819-1822 to show the revenue of the stampmasters illustrate not only how Fife recovered from the post-Napoleonic depression but how output changed in this period (see tables 4 and 5) ⁽³⁾ The general picture is one of overall decline in the output of more expensive goods such as Ticks, Checks and Brown Linens over 1/- per yard and an increase in the output of coarse goods. Looking at individual centres one sees the dependence of Cupar on coarse goods, in contrast to Angus where the cheapest goods were produced nearest the coast, suggesting another factor weighing against Cupar. ⁽⁴⁾ In spite of Dairsie having the alternative name Osnaburgh/

1. S.R.O. B.O.T. NG 1/60/76 op cit p.17.

2. Kirkcaldy Tech. Walter Fergus journal 20/1/1817.

3. S.R.O. B.O.T. NG 1/15/2.

I have deliberately not included Dunfermline because too little of the output was stamped. It is also worth noting that in Angus, the volume of Dundee's output was greater than that of the whole of Fife.

4. Higher priced goods were better able to bear the cost of transport

Table 4

4

Year	Brown Linen		White Linen	Harden Tweels Strickens	OUTPUT OF STAMPED LINEN (YDS)					Checks and Stripes	Tickings	Diapers	Total
	under 1/-	over 1/-			Ombures	Dowlas Luck	Boarding						
1819	2201186½	807024	135444	13840	434449	833193½	51938	699521	1181644½	720715	83353	6439980	
1820	1634943½	573621	278412	4163	372805	1488216	940	466690	699521	486168	81271	5703575	
1821	2117828	352262	1311470	15699	418746	1389556	596	519782	466690	363121	40939	6499690	
1822	2998448	354916	1041517	18053	523114	1913157			428476	87538		7923388	
<u>Total Value</u>													£286,663
													£257,790
													£277,740
													£320,145

Table 5

OUTPUT OF STAMPED LINEN (YDS)CUPAR

	<u>Brown Linen</u>		<u>White</u>		<u>Dowlas/</u>	<u>Checks/</u>	<u>Tick-</u>	<u>Total</u>	<u>Total</u>
	<u>under 1/-</u>	<u>over 1/-</u>	<u>Linen</u>	<u>Osnaburgh</u>	<u>Duck</u>	<u>Stripes</u>	<u>ings</u>	<u>Output</u>	<u>Value</u>
									<u>£</u>
1819	985521	22745	-	183565	48142	-	-	1258685	36547
1820	704017	15766	-	147670	45741	-	-	932025	25894
1821	1090539	-	-	201581	4067	-	-	1312616	33124
1822	1636420	1827		221772	8269			1888824	49378

LEVEN

1819	214725	387970	- 985	198720	447639	17413	4219	1289742	61336
1820	176626	285921	1197	186048	645640	-	708	1357437	63110
1821	164739	42068	557959	184752	544834	-	1488	1504489	68930
1822	231632	86807	323624	263624	631341	-	6831	1552761	68629

KIRKCALDY

1819	51107	-	131739	-	-	923852	585002	1691702	82321
1820	18551	-	276082	-	43507	584781	411284	1334205	63364
1821	9620	-	750259	-	219534	343925	288661	1621182	76928
1822	11419	-	714553	-	477884	392324	375539	1986556	88947

DUNDEE

1820	241297	165272	36421	1949595	-	-	-	6713063	195700
1821	2544798	-	664752	2176225	-	-	-	7409985	237789
1822	4055088	-	487796	2380277	-	-	-	8700909	240804

Dundee - Sacking and Bagging

1820	1788766
1821	2020205
1822	1774510

Osnaburgh, only 1/5th of the Cupar areas' output was of this product. The growth in the production of White Linen and Osnaburg, in response to the output of the Kirkland Works, was also marked in the Leven area. Producers in Leven however, were more efficient at maintaining both output and value in the difficult post-Napoleonic years. Although there is a strong contrast between Cupar and Kirkcaldy the decline in quality goods and the increasing output of plain White Linen, Dowlas, and Duck point to the coming stagnation of the Kirkcaldy trade and the inevitable pressures on the weavers as skilled men were forced on to products, traditionally reserved for the old, women and apprentices.

The changing Fife output can be clearly illustrated from the books of Robert Stocks, a growing Kirkcaldy manufacturer of the time. In April 1821 Stocks wrote to a customer "We are sorry we cannot execute your order for sheeting as we make bed ticks only" (1) His products varied from a very coarse Tick for ships' mattresses, a less coarse product for the Scottish domestic market and a fine product for the London trade. In 1823 Stocks was in fact offering 33 different qualities ranging from coarse grey 3/4 10 porter cloth at 9d per yard to ticks 13/16 to 4/4 wide from 20 to 50 porter from 12d to 2/7½d per yard. (2) It was customary to weave goods which were in regular demand, whilst less common goods were only woven to order, as when a sample was sent in to the firm to copy. (3) Whilst it does not appear that/

1. Robert Stocks Letter Book, Stocks to J. Collie Elgin, 18/4/1820.
2. Ibid 15/2/1823.
3. Ibid 26/11/1821 and 3/12/1821.

that manufacturers were consciously lengthening webs given out, the coarser the web the greater its length and as time went on there was a movement towards coarser products. In 1819 Stocks had regretted that he did not make sheeting and he therefore passed the order to Neilson and Co. at Kirkland.⁽¹⁾ In the same year Stocks was unable to make Osnaburg for a customer as this was not a Kirkcaldy product. However, by July 1820 he was making 9/8 and 5/4 plain sheeting,⁽²⁾ and had also begun to make Dowlas, occasionally, "we do not regularly make Dowlas but we hope what we send will give satisfaction".⁽²⁾ Four years later Stocks could still make the excuse, "The manufacture of Dowlas is a new branch to us."⁽⁴⁾ As the overall range of goods broadened so the production of checked goods declined. By 1822, Walter Fergus' journal ceases to record the purchase of cotton for cotton and linen checks and in July 1821, Stocks stopped making checks because, although wages had risen, competition kept the price down;⁽⁵⁾ only in the boom before 1825 and in late 1826 and 1827 were they provided again, although the price was falling all the time from 6.7/8d per yard at 26/11/1823 to 6½ at 18/8/1823 to 5½ at 19/6/1827. Thus in a letter to his traveller in May 1824, Stocks listed his products as "grey Ticks, bleached Ticks, mattress Ticks, striped Cranky, Dowlas and shirting/

1. Ibid 29/11/1819 20/11/1819.
2. Ibid 18/8/1820.
3. Ibid 15/5/1820
4. Ibid 18/5/1824
5. Ibid 2/7/1821.

shirting Stripe."⁽¹⁾ By 1827 he could write "we have now got a pretty good assortment of bordered towels and we have got a weaver on Diaper"⁽²⁾ Significantly, the product range of the 1820s was that which lasted into the present century. The Company's calculation books for 1896 to 1898 showed their main products to be Bengals, Checks, Crash, Dowlas, Duck, Sheetings, Ticks, Twills, Union and Linen suitings.⁽³⁾

A study of the N.S.A. and the examination of the goods in the hands of bankrupts confirms the changing pattern within Fife and the emergence of the typical household linens common to many firms' output in the later Nineteenth century. (see Appendix 1) for the N.S.A. returns), The Kirkcaldy entry for instance records the manufacture of Ticks, Twills, Dowlas, Sheetings, Ducks, Sailcloth.⁽⁴⁾ At Dunfermline the Table of Prices for 1842, includes rates for winding and weaving cotton, silk, merino and worsted and union goods as well as linen.⁽⁵⁾ D. & W. Millie of Pathhead, who failed in 1851, had over £600 worth of Tick in their warehouse, showing the continued importance of this Kirkcaldy area staple but they also had £400 of assorted Stripes, striped Holland, Checks, stair carpeting and mats, Diapers, Huckabucks and Dowlas.⁽⁶⁾ Henry Glass of Kirkcaldy/

1. Ibid Stocks to David Ramage 20/5/1824.
2. Ibid Stocks to Ramage 7/9/1827
3. Robert Stocks, calculation books 1896 to 1898.
4. N.S.A. Fife p.753.
5. Dunfermline Public Library, Table of Prices 1842.
6. S.R.O. Millies' sequestration op cit CS 280/38/99.

Kirkcaldy had the following assortment of goods. (1)

Bengals	at	3d to 4 $\frac{1}{4}$	per yard
Checks		4 $\frac{3}{4}$	"
Ticks		4d to 14 $\frac{1}{2}$	"
Twills		11d	"
Holland		12d	"
Dice		15d	"
Diaper		6 $\frac{1}{4}$	"
Drill		8 $\frac{1}{2}$	"
Dowlas		3 $\frac{1}{2}$	"

Finally the inventory of the goods of A. Cameron and Son, Freuchie which comprised brown linen, Diapers and red end Diapers, Hucks, Hollands, Sheetings and pillow cases shows how these goods had, by the end of the period, spread to central Fife. (2)

It is now necessary to show where the raw materials came from which were used in the various products described above. The O.S.A. for Kirkcaldy points out the general position in the closing decades of the Eighteenth century. "After flax is heckled, the manufacturer sends it to the undertakers in different parts of the country who give it out to be spun and receive a certain commission on the quantity of yarn returned by them. (3) Some manufacturers had their flax heckled by independent hecklers, larger firms such as John/

1. S.R.O. Glass' sequestration op cit CS 280/42/90. The price of goods, although allowing for the bankrupt nature of the stock show the continued fall in the value of Fife goods.
2. S.R.O. A. Cameron and Son Freuchies sequestration 1860 CS 318/6/52.
3. O.S.A. Kirkcaldy XVIII p.30.

John Melville and Co, Dysart had their own heckling premises.⁽¹⁾

Other yarns were purchased from the surrounding neighbourhood and from the Montrose, Brechin and Cupar Angus area; yarn was also imported from Hamburg and Bremen,⁽²⁾ for use in both the coarser manufactures and in the Tick and Check trade; there was little Irish yarn used at the time in Fife.⁽³⁾ The cotton mills, which were set up in Kinghorn and elsewhere in the early nineties provided some of the yarn needed for the growing mixed check trade,⁽⁴⁾ but connections with West of Scotland merchants such as Sharp & Mackenzie had already been established⁽⁵⁾ and cotton production in Fife was short lived, all the jennies being stopped by 1805.⁽⁶⁾ The connection with the West continued, firms buying their cotton yarn both from merchants and manufacturing houses such as Robert Owen at New Lanark.⁽⁷⁾

In 1813 the Leven and Eden spinners called upon the Board of Trustees to ask for tariffs on imported yarns, but fine spinners were still dependent on home hand-spun yarns and German and Irish yarns. William Stark at Auchtermuchty was still using some coarse Irish and German yarn for his Silesias at his failure in 1819.⁽⁸⁾ Kirkcaldy manufacturers and merchants had set themselves up as agents for German and/

1. Guildhall Library Sum GH 11937/10 27/7/1795. Policy No. 644359.
2. O.S.A. Kirkcaldy XVIII p.31. (Appendix 2)
3. O.S.A. Dysart XII p.511. S.R.O. B.O.T. NG 1/21/1 letter andent Linen inspection. S.R.O. CS 96/707. Melville's sequestration 1807.
4. O.S.A. Kirkcaldy XVIII p.36.
5. Kirkcaldy Public Library David Millies petition 1794 p.35.
6. N.S.A. Fife p.755.
7. Robert Stocks, cash book No. I passim.
8. S.R.O. CS 96/1130 Stark's sequestration op cit.

and Irish yarns; notable amongst these were William Swan and William Russell & Co. (1) Others such as Henry Oliphant imported German yarn on their own account and advertised it in the press, for sale at three months' credit. (2) Some yarn was bought through Leith merchants and yarn could be bought from London merchants; other yarns were shipped directly from Ireland to Kirkcaldy, (3) though the major part of Irish yarn was purchased through Glasgow houses. (4) Imports of foreign yarn continued into the 1830s. (5)

Although some hand-spun yarn continued to be used throughout Fife, (6) by 1820 David Blair of the B.O.T. could report that most of the Fife and Forfar weavers were supplied with locally-produced mill-spun yarns, but that Dunfermline was still finding difficulty in obtaining sufficient quantities of fine yarn. (7) Much of Dunfermline's yarn came from the Dunkeld area of Perthshire; according to William Hunt, an important Dunfermline manufacturer, as much as £40,000 worth was bought yearly when he began manufacturing. Supplies were also sought from Aberdeen and further north. (8) Following the introduction of wet spinning from 1825/

1. Kirkcaldy Technical College. W. Fergus journal op.cit. passim; Stark's sequestration CS 96/1130.
2. Edinburgh Advertiser 28/7/1795; 25/6/1799.
3. R. Stocks Letter Book op.cit. 26/9/1822.
4. W. Fergus journal op. cit. 28/1/1813.
5. N.S.A. Fife p.755.
6. F.H.9/9/1824. James Robertson of Dysart's Bankrupt stock included hand-spun yarn. Robert Stocks Letter Book 8/3/1823 Stocks was using hand-spun yarn under 31s. 19/9/1826 Stocks wrote to John Adam, Turiff, inquiring the price of his hand-spun yarn.
7. S.R.O. B.O.T. NG 1/60/54 p.7 D. Blair's report 1822.
8. B.P.P. 1844 XXII Poor Law Inquiry Commission p.360. Evidence of William Hunt. S.R.O. B.O.T. NG 1/60/78 op.cit. Presumably, the agricultural developments in Fife were such that there was not the labour nor the flax to produce the quantities of fine yarn required by Dunfermline manufacturers.

1825, Dunfermline was largely supplied by the big English works and the new Ulster spinners who converted their cotton mills to meet the demand for wet-spun yarn. In 1830 most of the Dunfermline yarn came from Leeds ⁽¹⁾ especially John Marshall & Co. but by the forties she was dependent for her fine yarn on Leeds, Preston, Belfast, and to some extent, Princlaws in Fife; her coarser yarns came from the locality of Dundee. ⁽²⁾ (It appears that as early as the twenties Marshall's coarser yarns were uncompetitive in Scotland for Robert Stocks wrote to Marshalls "The price of your heavy yarn is so high that we cannot use it."⁽³⁾) Gradually, Ireland began to gain a competitive edge on Leeds and Irish yarns became much more common in Fife as Dunfermline manufactures began to spread through the county. Thus, whilst the largest single creditor of James Troup of Strathmiglo in 1848 was W. B. Houldsworth & Co, flax spinners Leeds, ⁽⁴⁾ by 1857 firms as varied as George Birrell in Dunfermline and George Thomson of Auchtermuchty had large debts to Irish spinners. ⁽⁵⁾

Whilst there was a marked increase in the connection between Fife and the Linen trade of Ulster by the middle of the century there is no definite pattern within the county as regards the supply of yarn to individual firms. In the early years, for instance Robert/

1. B.P.P. 1833 XXI Factory Inquiry Commission, Second Report p.27.
2. Chalmers, History of Dunfermline p.372.
3. R. Stocks' Letter Book op.cit. Stocks to Marshalls of Leeds 26/11/182
4. S.R.O. CS 280/13/79. James Troup's sequestration 1848.
5. S.R.O. CS 318/6/15. George Birrell's sequestration 1857.
S.R.O. CS 318/5/344. George Thomson's sequestration.

Robert Stooks bought his yarn both Irish and hand-spun from several sources, but from 1811 to 1826 he relied for his Fife yarn largely on Alexander Robertson of Haughmill. After Robertson's failure he used the medium-sized Fife firms of William Kirk, the Rothes Spinning Co, James Aytoun and Charles Arthur. (1) Walter Fergus, the important Kirkcaldy manufacturer, bought his yarn from Joseph and Alexander Russell in Kinghorn and James Bissett at Prinlaws, firms with which he had strong financial ties. (2) Michael Nairn, the canvas and later floorcloth manufacturer had thirteen different suppliers between 1840 and 1848. Initially he bought most of his materials from Swan Bros, Archibald MacDonald and John Fergus; latterly most of the yarn came from J. and H. Peter at Kirkland. (3) Only in the North of the county was there a significant trend, as manufacturers began to be tied to the output of the Dundee spinners. (4)

IV

The destination of Fife's linen output and the manner in which it was disposed of will now be considered. Before the American War of Independence, much of Scotland's linen found its way to America. Although new markets were found in the West Indies and goods penetrated the American market via new routes such as by Nova Scotia, there was a general stagnation in the linen trade about 1777/

1. Robert Stock's cash book passim.
2. Walter Fergus, journal passim.
3. M. Nairn, cash book No. 4 passim.
4. S.R.O. John Inglis sequestration 1848 CS 280/11/26.
James Lyell' sequestration 1849 CS 280/13/43.

1777. (1) Whereas before the Wars, much of Kirkcaldy's output of Checks had been sent to Glasgow for export, (2) by 1800 Thomson could write "The Linen manufactures are shipped principally to the English, and partly to the Scots market: the Dunfermline goods at Crombie point for Barrowtowness and the other kinds from the ports of Kirkcaldy and Newburgh." (3) It is not possible to be precise about the quantities of Fife linen being exported at the time. Although important Glasgow merchant houses like Alexander Houston and Co. were sending linens such as Diapers, Drills and Fife Checks to the West Indies, there is no indication of the percentage of goods which was made in Fife. (4) The bankruptcy papers of Thomas Chalmers and Co. of Auchtermuchty and Goodsir and Adamson of Cupar suggest that a large part of the North Fife output of coarse goods, such as Silesias and Britanias, continued to be exported through Glasgow, and this was augmented by their goods which were stamped by Dundee bleachers and packed and shipped by them to Glasgow. (5)

At the time of the O.S.A. three quarters of Kirkcaldy's output was sent to England, some of which was for the West Indies and the United States, one eighth was sent to Glasgow for export and one eighth for sale in the country. (6) The Minister of Dysart suggested that half the Dysart goods, mostly Ticks and Checks, went to London, a quarter, mostly the coarser goods went to Glasgow and the other quarter was/

1. M.L. Robertson. Scottish Commerce and the American War of Independence
Economic History Review II vol. IX 1956.
2. N.S.A. p.753.
3. Thomson, General View of the Agriculture of Fife p.299.
4. N.L.S. MS 8795. Alexander Houston and Co, Merchants, Glasgow. Sales Ledger.
5. S.R.O. CS 96/1210 Report in the M.P. Thomas Chalmers and Co. 1826.
6. O.S.A. Kirkcaldy XVIII p.32.

was sold in the large English towns such as Manchester, Liverpool Nottingham and some of the Yorkshire towns.⁽¹⁾ The ledgers of Robert Stocks and Company at the beginning of the century confirm this pattern of trade, though little of his output was exported by him; those who purchased his goods might of course send them abroad. In 1820 Stocks wrote to Campbell Rivers and Co. "as we had cause to regret once making a consignment to Jamaica we resolved to confine ourselves to the British market for the sale of our manufactures".⁽²⁾ Although firms such as John Fergus and Son of Kirkcaldy continued to make large sales to Glasgow houses such as Dennistoun Buchanan and Co. with whom they had close business ties and directly in 1817 to Dennistoun Hill and Co. of New Orleans, it would appear that they too were to come to regret their adventures in the American market.⁽³⁾ Conrad Grill, drawing on the accounts of the large Irish house of J. J. Richardson suggests that sales to America and the West Indies between 1815 and 1822 were not a good speculation, since there were no organised markets and sales were very slow.⁽⁴⁾ Entries in Walter Fergus' journal confirm this view. On the 14th September 1813 Fergus recorded adventures to Curacao and Jamaica. On the 1st of June 1815 he recorded a substantial gain on the former of £273 and a small loss on the latter of £.19.7d. In the year 1819 Fergus recorded losses on goods sent in 1817 to both the West Indies and to the American continent. On the 12th of March 1821 he recorded his worst loss/

1. O.S.A. Dysart XII p.511.
2. Robert Stocks' Letter Book op cit. 5/9/1820.
3. Walter Fergus' journal op cit. passim.
4. Grill. Rise of the Irish Linen Trade p.257

loss, £307. 6.10d on an invoice dated 11/7/1818 for £509.13.5d.⁽¹⁾

Several factors then, influenced the Tick and Check manufacturers of Fife in favour of the home trade. Firstly there was the overall growth in the British economy, which increased the demand for household linen, coupled with the changing direction of Manchester's output. Latterly there was a declining demand for Fife Checks as these were replaced by cheaper all cotton goods. Secondly, during the Napoleonic Wars, manufacturers had found the home market less volatile than the export trade and during the time that the American market was closed to British goods after 1812, the South American market was found too small and speculative. There was, therefore, a tendency, as we have shown, for Kirkealdy manufacturers to abandon the manufacture of Checks and to concentrate on the production of Ticks and other goods for the home market. Thus John Hutchison could write in 1815 that his firm David Dougall and Co. Tick manufacturers Kirkealdy had changed from the export to the home trade⁽²⁾ and Robert Stocks wrote in plain terms to R. Simmons of London, "our Ticks are seldom exported, our connections being almost entirely in the home trade"⁽³⁾

The trade of Dunfermline consisted largely of products for the home market till the increase in living standards in the United States began to lead to a growing demand for Dunfermline goods. At first the demand was for the coarse "Whitey Browns", but this forshadowed the growing demand by the United States for all types of Dunfermline/

1. Walter Fergus journal passim
2. Kirkealdy Public Library. Hutchison Papers. J. Hutchison to J. Weatherald 28/5/1816.
3. Robert Stocks Letter Book op.cit. R. Stock to R. Simmons, London 18/6/1823.

Dunfermline goods. / Already by 1836 Chalmers estimated that £150,000 of an output of £351,000 worth of goods was shipped to America. ⁽¹⁾ Only in the largely new Fife product, canvas, were there increasing speculative sales abroad. Though much of the output was sold to merchants and sailmakers at home, by the 1840s Michael Nairn was sending canvas to Adelaide, Montreal and Bombay. John Bremner, another Kirkcaldy canvas manufacturer, was, at his failure in 1842 making speculative sales in Australia, Canada and Malta. ⁽²⁾ The trend, therefore, in Fife was for sales largely to be confined to the home market, though the important American market was beginning to develop for Dunfermline products and speculative sales were beginning to the colonial markets which were also to be important in later decades.

Turning to the methods of sale, the most significant feature of the last quarter of the Eighteenth century was the decline of fairs and markets as outlets for linen goods in general and the growth of consigning to London commission agents, who sold to drapers, upholsterers and foreign shippers. The unequal decline of markets within the county reflects the varying capital structure of the linen trade in different areas. In 1766, Lord Kames could already generalise that, "Our linens are consigned to factors who sell upon time." ⁽³⁾ Referring specifically to Kirkcaldy Loch in 1778, said "A great part of the Checks and Ticks go to England for which they have a brisk demand". ⁽⁴⁾ They were sent there by growing expanding firms such as John Ferguson & Son. Whereas previously, Kirkcaldy/

1. Chalmers History of Dunfermline p.373.
2. Michael Nairn, Cash book No. 4 op cit; S.R.O. John Bremner's sequestration 1842. CS 280/18/3.
3. Kames, Progress of Flax Husbandry in Scotland (Scots Magazine 1766 p.20)
4. Loch op.cit vol II p.41.

Kirkcaldy weavers had sold their Ticks in markets, where they were bought mostly by Glasgow merchants,⁽¹⁾ capitalist manufacturers began to emerge, sending off their goods on their own account and buying up the output of small manufacturers in order to increase the variety of their stock. At the time of the O.S.A. Kirkcaldy merchants and manufacturers were buying in £30,000 worth of goods per year.⁽²⁾ By 1817 John Fergus and Son, Kirkcaldy's leading manufacturers were selling not only Ticks and Checks of their own manufacture but Huckabacks, Hessian, Dowlas, Sheetting and Canvas made by themselves and others.⁽³⁾

By the time of the N.S.A. markets connected with the Linen Trade had all but disappeared. The "Fife Herald" said in 1830, "The Cupar Lintseed market as it is called was held on Thursday last, but so much are times changed that there was scarcely any of that article in Market."⁽⁴⁾ Markets and fairs had become occasions for local merrymaking and as such were attacked by the Church; the only goods on sale were toys, shoes, food and drink. But markets did continue to play an important role in parts of Fife till well into the Nineteenth century. At the time of the O.S.A. there were still monthly markets for White Linen in the parish of Scoonie.⁽⁵⁾ Both Kingskettle goods and Falkland's green cloth were sold at the markets in Cupar and Auchtermuchty.⁽⁶⁾ About £50,000/

1. S.R.O. JC 26/297. Memorial to John McIntosh (1798)
2. O.S.A. Kirkcaldy Vol XVIII p.31.
3. Walter Fergus journal op.cit 1817 passim.
4. F.R. 15/4/1830.
5. O.S.A. Scoonie V p.113.
6. O.S.A. Kingskettle, Vol I p.379, Falkland Vol IV p.443.

£50,000 worth of green cloth was bought at the Auchtermuchty markets each year in comparison with a parish output of £18,000.⁽¹⁾ The minister of Cupar reckoned that Cupar was the largest market for Brown Linen in the County "The Linen merchants in Cupar pay annually to the manufacturers and weavers betwixt £40,000 and £50,000". These goods were purchased for cash and sent to London, Glasgow, Leeds and other centres.⁽²⁾ In 1815 the Board of Trustees noticed that the smaller inland manufacturers were still selling their goods to dealers.⁽³⁾ In the 1820s there was still a Cupar Silesia market. As long as the North Fife trade was undominated by large scale capitalists some markets would survive.⁽⁴⁾ Only slowly did the small North Fife manufacturers who survived begin to consign their goods, mostly to Dundee as the city's influence grew over the northern part of the County.⁽⁵⁾

The high cost of consigning goods, - the charge for insurance, warehouse and commission might be more than 12½% not allowing for the charge of interest on money advanced⁽⁶⁾ - led larger manufacturers at the beginning of the nineteenth century to appoint travellers, this also took the burden of selling off the manufacturers' shoulders though it appears that Dunfermline manufacturers liked to visit the main selling centres from one to three times per year.⁽⁷⁾ Certainly Robert Stocks having done without/

1. O.S.A. Auchtermuchty VI 344.
2. O.S.A. Cupar Vol. XVII p.144 O.S.A., Kingskettle Vol I p.379.
3. S.R.O. B.O.T. NG 1/3/21 23/3/1815.
4. S.R.O. B.O.T. NG 1/60/78. S.C. on altering of Linen regulations op cit. Evidence of David Allan, Linen Factor in London, 12/6/1823.
5. S.R.O. CS 280/40/13. William Bairner, Cupar's sequestration 1853.
6. S.R.O. CS 96/312 Charles Alexander's sequestration 1834.
7. Chalmers, op.cit. p.373.

without a traveller for a number of years welcomed the appointment of a new traveller, David Ramage in 1823. In a letter to a customer the firm wrote "As it is very inconvenient for our Robert Stocks to be from home, we have appointed Mr. David Ramage to do our country business in Scotland."⁽¹⁾

Stocks continued to visit some of his important London customers and others sent a representative to Kirkealdy. Equipped with the manufacturer's price list and pattern books, Ramage's job was to take the firm's orders and collect its debts from Whithorn to the Orkneys.⁽²⁾

The increased use of travellers hit smaller firms, unable to afford a traveller. It also led to the disruption of London firms which stopped placing regular orders. As travellers often worked for several firms and traded on their own account as well, firms were sometimes brought down by the travellers' failure.⁽³⁾

When Robert Stock's traveller failed in 1821 he gave up using a traveller for two years, maintaining his connections by correspondence.⁽⁴⁾

Stocks proceeded to build up a number of important direct contracts, notably with the London furnisher John Harris Heal to whom he started sending goods in 1848. By 1854, Heal was buying one third of Stocks output. This business connection was doubly cemented by marriage, for in 1864 Robert/

1. Robert Stocks Letter Book, 21/2/1823. Stocks to H. Cameron.

2. Ibid *passim*.

3. S.R.O. CS 96/802 Sequestration of John Wilson & Sons, Dunfermline 1815.

4. Robert Stocks, Letter Book, 12/10/1821.

Robert Stocks son, John Thomson Stocks married Heal's daughter and in 1904 their son Robert married one of Heal's granddaughters ⁽¹⁾ In the early years Stocks' trade was concentrated on a large number of small Scottish customers and a few larger English orders; the Scottish outlets increased till the sixties by which time the London and provincial trade had greatly increased with the appointment of agents in London, Leeds, Manchester and Dublin. In all sales the normal terms were cash at five or six weeks at a discount of 5% or credit for six to eight months with payment in full. ⁽²⁾ Direct sale to furnishers, upholsterers and retailers coupled with the appointment of agents in the expanding population centres were the main means of expanding the Kirkcaldy trade. Canvas manufacturers such as John Bremner also sold through agents in London and Glasgow and to sailmakers in Greenock and to Belfast, Liverpool and Hamburg. ⁽³⁾ Similarly, Michael Nairn had agents in London and Liverpool by the ^{thirties} 1840s as well as securing naval contracts. ⁽⁴⁾

In the Dumfriesline trade, merchanting firms such as David Dewar and R.H. Robertson set up manufacturing businesses in the town whilst larger firms such as Erskine Beveridge and Co. opened warehouses of/

1. Robert Stocks and Co. Ledgers passim. I am grateful to Anthony Heal, the 6th generation of the family in the business-for the information on the family connections. Heals were still buying Stocks' products at Stocks' closure in 1973.
2. Robert Stocks and Co. Ledger "O" 1823-1845 -177 Scottish Accounts, 15 English
 Ledger "I" 1844-1862 -200 accounts, mainly Scottish
 Ledger "2" 1863-1867-Increased English Provincial trade.
3. S.R.O. Sequestration of John Bremner, Kirkcaldy op cit.
4. Muir. Nairns of Kirkcaldy, p.9.

of their own in Manchester. David Birrell, the son of William Birrell, a Dunfermline manufacturer, trained for the Law in Edinburgh, returned to Dunfermline as a commission agent before opening his Scottish and Irish linen warehouse at 261 Oxford Street, London, relying for capital on his father's inheritance, trust money borrowed from his brother and a bank loan. Among Birrell's customers at his failure were several politicians of the day including J.G. Shaw Lefevre.⁽¹⁾

Finally in this section there were some firms which retailed their goods. In 1845 Ninian Lockart and Sons were advertising their "Family Linen Warehouse" and in 1849 this Kirkcaldy firm was increasing its products to include - ticks, sheetings, towellings and other goods, mostly made by Lockharts.⁽²⁾ Lockharts also had a special arrangement with J. & W. Wilson for sale of their rugs and carpets.⁽³⁾ Another firm to use arrangements for contra entry accounting was John Wemyss of Kirkcaldy who was sending sheeting to Wilsons in return for tartan.⁽⁴⁾ In other cases, firms agreed to take orders for other manufacturers' specialities if they reciprocated. Thus, a long standing arrangement was built up by Robert Stocks in Kirkcaldy/

1. S.R.O. CS 280/43/67. Sequestration of David Birrell.

2. F.H. 6/12/1845; F.H. 10/5/1849.

3. Ibid.

4. N.L.S. M.S.6752 f.191 Wilson Papers.

Kirkcaldy and David Adamson in Kettle where Stocks took Adamson's orders for window blind and Adamson passed on orders for ticks to Stocks. (1)

A major problem for Fife manufacturers was the transport of their goods. There are many references to the bad roads in the County in the O.S.A. and Kirkcaldy suffered throughout the century from the inadequacy of her harbour and the small overall size of the Fife trade, which made direct shipping from Kirkcaldy difficult. However, because of the cost of land transport most Fife goods were sent by sea, especially following the opening of the canal between the Forth and the Clyde in 1790. Only for mid Fife goods being sent to Glasgow was much use made of the carrier (2) and for the dispatch of small parcels to the West, thus Robert Stocks wrote to a customer in Ayr, "the conveyance by water betwixt this and Glasgow being so irregular we therefore send this parcel to Glasgow per carrier". (3) In the early nineteenth century most of Stocks goods were forwarded through a shipping agent in Leith. Glasgow goods went by the canal, goods for Liverpool and Manchester went first to Glasgow and then coastwise to Liverpool. London goods were usually sent from Leith to Mill's ^{or} Warf on the Thomas and goods for Bristol

1. Robert Stocks, Letter Book, 6/7/1820 and 10/10/1826.
2. S.R.O. (CS 96/1130) Sequestration of William Stark, Merchant, Auchtermuchty 1819.
" John McGregor, manufacturer, Kettle 1836. CS 236
Sequestrations M 6/7.
3. Stocks Letter Bk. 5/3/1823. Stocks to Hugh Watt, Irvine. The cost of sending small parcels by the canal was prohibitive.

Bristol were sent coastwise to London and from there to Bristol by canal.⁽¹⁾ Occasionally ships left from Kirkcaldy to America as in the case of the "Mercury" of 219 tons advertised to sail to New York "for freight and passage apply John Fergus and Sons, Kirkcaldy"⁽²⁾ In other cases, a Kirkcaldy boat might take on additional cargo at Dundee as did the "Sisters" bound from Kirkcaldy to Philadelphia.⁽³⁾ Although Fife's transport problems continued, strenuous efforts were made to improve the shipping arrangements. In 1796, Provost Walter Fergus had been a leading member of a Committee for improving the harbour, but in spite of developments the harbour continued to be inadequate. In 1808 a Kirkcaldy, Leith and Glasgow Steam packet Co. was formed and in 1818 the Kirkcaldy and Leith Shipping Company was set up.⁽⁴⁾ The pressing need, however, as called for in the "Fife Herald," was for a direct Kirkcaldy and London Shipping Co. owing to the number of goods which had to be trans-shipped at Leith.⁽⁵⁾ Amongst the campaigners for such a Company was Robert Stocks and when the Company was formed, he joined the management. In Thomsons' directory of Kirkcaldy in 1834 the port had 186 ships weighing 13,934 tons and employing 1,282 men.⁽⁶⁾

At/

1. Ibid. passim.
2. Edinburgh Advertiser, 6/8/1799.
3. N.I. Beckles. Development of the Port and Trade of Dundee p.42. Ph.D. Thesis, Dundee, 1968.
4. Kirkcaldy Town Council, Minutes, 9/11/1818.
5. F.H. 10/3/1825.
6. Thomson, Directory of Kirkcaldy, 1834 p.33.

At that time there was a Kirkcaldy and London Shipping Co, a Kirkcaldy and Leith Shipping Co. and the Glasgow trader.⁽¹⁾

To secure a market for Fife goods especially those of Dunfermline, manufacturers constantly sought protection. As early as 1770 Mark Stark of Dunfermline had been questioned by the B.O.T. on the manufacturers' petition to the Board to use its influence to secure prohibitory duties on linen imports.⁽²⁾

Another manufacturer with strong Fife connections, Walter Biggar of Edinburgh believed that Scottish goods in imitation of foreign goods would only survive if sheltered by high protective barriers.⁽³⁾

Pennant stated, specifically, that in Dunfermline it was felt that were it not for the low duties on imported linens the trade of the town would double.⁽⁴⁾

In 1809 the Dunfermline table linen manufacturers requested the Trustees' influence to petition the Board of Trade to increase the duties on foreign table Linens.⁽⁵⁾

Again, in 1825 the Manufacturers memorialised the Board against Mr. Huskisson's threatened reduction in duties and the Secretary wrote to Lord Melville and Huskisson suggesting a gradual reduction in duties.⁽⁶⁾

At the same time the manufacturers and the Incorporation of Weavers sent a petition of their own and a general petition was signed by 2,000 people in/

1. Ibid p.26.

2. S.R.O. B.O.T. NG 1/1/19 21/2/1770.

3. B.P.P. 1773 Select committee on the State of the Linen Trade p.102.
Evidence of Walter Biggar.

4. Pennant, Tour in Scotland, p.213.

5. S.R.O. B.O.T. NG 1/1/32 24/5/1809.

6. S.R.O. B.O.T. NG 1/1/35. 25/5/25. Thomson, Weavers Craft p.305.

in the town.⁽¹⁾ Certainly the alteration of duty to 40% advalorem, led to a large importation of German linen and there was depression in the town in 1827. Mercer; the Dunfermline Historian, wrote at the time, that if the duties were removed "or indeed were there any alteration whatever save a still more protective duty Dunfermline would be annihilated"⁽²⁾

Although Dunfermline manufacturers blamed the low wages and easy access to raw materials in Germany as the reason for the incompetitiveness of Dunfermline goods, the Board of Trustees' letter to Lord Melville reveals that poor quality was Dunfermline's weakness

"Although the specimens from Dunfermline (entered for the Board's premiums) have recently been more and more satisfactory, and have been approximating towards those of their powerful foreign rivals, great exertion will yet be necessary before the Scottish Damask can successfully meet that of Germany in the market."⁽³⁾ That exertion was rendered less by the introduction of the Jacquard machine from 1825, which replaced heavy hand work on the loom by easier pedal controls, increased productivity in the trade by making change of design a mere changing of the Jacquard cards and enlarged the scope of design, at the same time reducing the price of linen and allowing Dunfermline goods to compete with those of Germany.⁽⁴⁾ After the freetrade years of mid century the/

1. F.H. 31/3/25.

2. Mercer, History of Dunfermline, p.168.

3. N.L.S. MS 1058 f 189. Secretary to the B.O.T. to Lord Melville 26/3/1825.

4. Chalmers. History of Dunfermline p.361. By controlling the supply of cards manufacturers also gained a tighter grip over their work force.

the demand for protection had come full circle by 1900 and manufacturers were calling for protection for their products "to put us on an equal footing" with foreign manufactures.⁽¹⁾

The period under review, therefore, was one of growing capitalism in the Fife linen trade, as manufacturers, with sufficient resources to sell their output on their own account, abandoned the local fairs and markets and looked for new, more profitable ways of selling their goods. Owing to its geographical position Fife was always beset by problems in obtaining her raw materials and finding an access to her markets. In the case of the fine table linen trade of Dunfermline, markets had to be maintained against foreign competition by putting up protective barriers which continued into the middle decades of the Nineteenth century.

V.

Thomson, in his general view of the agriculture of Fife suggests that there were about 5,000 weavers in Fife in 1800.⁽²⁾ Using Thomson's rough method of calculation, this number would have increased to about 8,000 in 1822.⁽³⁾ Although the O.S.A. gives the numbers of weavers or looms in some parishes, the overall statistics are scanty, some writers indicating the number of looms employed within their parish, others stating the number employed throughout the county by the manufacturers resident in the parish. However, it seems that over half the looms were at work in and around the principal centres of Kirkcaldy Dunfermline/

1. Tariff Reform Commission 1905. Vol II part 7, paragraph 4308.
2. Thomson, op.cit. p.305. He thought that over the county, each loom produced 1000 yards of cloth per year.
3. S.R.O. B.O.T. NG 1/15/2, 1822.

Dunfermline and Cupar. ⁽¹⁾ The returns by the B.O.T's stampmasters are no more helpfull because, as in the case of Dunfermline, little of the output was stamped or in the case of Auchtermuchty and Cupar these were market places to which goods were brought, stamped and then sold. Further, to save extra transport costs, bleached goods were often stamped at the bleachfield and then sent away directly. The case of Kennoway illustrates the point. The number of looms rose from 140 in 1768 to 240 in 1792. ⁽²⁾ Assuming an output of 1,000 yards per loom an output of over 200,000 yards would have been expected in the Seventennineties, however, in June 1795 the Board's secretary thought that about 70,000 to 100,000 would be produced there in a year. It appears that only 69,000 yards were in fact stamped. ⁽³⁾ By contrast in 1799, in the parish of Markinch 235 looms produced 230,000 yards of cloth. ⁽⁴⁾

Nor can one be certain of the amount of time weavers spent at the loom. In inland parishes, even at the time of the N.S.A. weaving was far from being a full time occupation, one third of the weavers of Markinch did outdoor work in the summer, ⁽⁵⁾ whilst in Dairsie, it was general for weavers to do farm work in the summer. ⁽⁶⁾ In the Cupar area generally, many masons and labourers turned to weaving in the winter ⁽⁷⁾ and round the coast, weaving was done in the winter and fishing in the summer. At Balmerino there were still some whaler weavers at the time of the N.S.A. ⁽⁸⁾ Further, although there was a tendency for workers/

1. O.S.A. Abbotshall, IV. p.189; Dysart XII. p.511; Dunfermline XIII. p.432; Kirkcaldy XVIII. p.29. Cupar XVII. p.144; Auchtermuchty, VI. p.338.

2. S.R.O. B.O.T. NG1/1/18, 22/6/1768; NG 1/1/28 20/6/1792.

3. S.R.O., B.O.T. NG 1/3/17. 26/6/1795; NG 1/1/29 25/11/1795.

4. S.R.O. B.O.T. NG 1/1/30, 20/11/1799.

5. N.S.A. Fife, p.674.

6. B.P.P. 1844 XXII Poor Law Inquiry Commission, Minutes of Evidence p.270

7. F.H. 12/11/1829.

8. N.S.A. vol. 9, Fife, p.85 and p.588.

workers to migrate to the towns and villages, the increase in the output of wheat demanded more part-time work on the land at harvest time. As late as 1855, the year in which reaping machines began to appear in Fife,⁽¹⁾ the 'Fife Herald' prophesied in August "Harvest operations will reduce the production of Linens very much."⁽²⁾ Harvesting was a major problem for manufacturers who were unable to guarantee delivery during the operations. Even in Kirkcaldy, Robert Stocks estimated that harvest work disrupted trade for three months.⁽³⁾ He wrote thus in 1823: "At this season the weavers get on so slowly we fear we will have great difficulty in executing our orders"⁽⁴⁾ In August he complained "Our weavers are doing next to nothing and will still fall off for two months hence"⁽⁵⁾ The situation did not ease for in 1830 the 'Herald' opined "We don't recollect of any harvest during which so little has been done at weaving in this part of the country as the present."⁽⁶⁾ Robert Stocks' manufacturing book for 1805 to 1813, which shows Stocks greatly increasing his scale of business shows the cyclical pattern in the year's wages. The trend of lower wages in August and September and the highest wages in December, presumably to save for the New Year celebrations is confirmed in Stocks' cash book from 1811 to 1833.⁽⁷⁾

In Kirkcaldy a web was expected to take about one month to weave,/

1. F.H. 6/9/1855.
2. F.H. 30/8/1855.
3. R. Stocks, Letter Book 4/12/1822.
4. Ibid. 8/9/1823 to George Thwaites.
5. Ibid. 3/8/1824 to G.K. Young & Co.
6. F.H. 4/11/1830.
7. Robert Stocks and Co. Manufacturing Book 1805 to 1813 (see Appendix 3) Cash Book Jan.1811 to July 1833.

weave, the yearly output averaging from 10 to 12 at the time of the O.S.A. (1)

In a letter to a customer more than twenty years later Robert Stocks wrote, "We have to regret that the weaver has kept this web so long, it went into the loom in the beginning of October and should have been finished in a month". (2)

Wages till the eighteen twenties were paid per spindle of yarn woven and varied greatly with the quality of the cloth. Coarse cloths, reserved for apprentices and the older weavers were paid at the rate of 2/6d per spindle whilst fine ticks were 3/11d per spindle in 1806, the increase being greatest at the top end of the scale. (3)

Over the eighteenth century as a whole the rates for weaving seemed to have remained fairly steady. Amongst the Rothes papers there are several accounts for weaving. In 1738 sack cloth was woven at 6d per ell; in 1742 at 5d, whilst in 1744 72 yards of sheeting was woven for £5.2/- including winding and warping, and the wage for working 33 yards of Holland in 1742 was 1/- sterling per/

1. O.S.A. Kirkcaldy, XVIII. p.30.

2. Robert Stocks, Letter Book 10/12/1819.

3. Robert Stocks' Manufacturing Book, 1805 to 1813 - Wages of 3 leaved Tick 16/4/1806.

20 - 24 porter	2/6d per spyndle.	
26 - 28	2/7d	"
30	2/7d	"
32	2/8d	"
34	2/9d	"
36	2/10d	"
38	3/-	"
40	3/2d	"
42	3/5d	"
45	3/8d	"
48	3/11d	"

per yard.⁽¹⁾ In 1785 the Earl of Leven and Melville purchased Damask napkins from Ebenezer Gardener "N.B. he took a shilling the yard for working it".⁽²⁾ About 1790, weavers' wages certainly rose and Manufacturers had to advertise for weavers in the newspapers, about 50 coming from the Highlands to Kirkcaldy, though several enlisted shortly after.⁽³⁾ However, wages soon fell back for the O.S.A. commented in 1793, during a period of renewed depression "An individual weaver can still earn 8/- to 12/- in the week, but the actual earnings of all weavers employed and for all kinds of work, do not now exceed the weekly average of five shillings."⁽⁴⁾ Examination of the period of increasing wages in the early eighteen twenties would suggest that the weavers' aim was to earn enough to stay above the subsistence level. In the three months to August 1821 wages in Kirkcaldy increased by 6/- per piece of cloth,⁽⁵⁾ and continued to rise to 1825, throughout the county.⁽⁶⁾

Weekly Wages paid to weavers at R.Stocks and Co.⁽⁷⁾

	<u>1820</u>	<u>1821</u>	<u>1825</u>
1st class	8/2	9/6	10/6
2nd class	6/-	7/4	9/-
3rd class	4/3	5/7	} 4/6 to 6/-
4th class	3/5	4/8	

The/

1. Kirkcaldy Museum, Rothes Papers, Accounts 11/11/1738, 27/2/1742; N.D. 1744; 24/7/1742.
2. S.R.O. Leven and Melville Papers, G.D. 26 V.712.
3. O.S.A. Kirkcaldy XVIII. p.34.
4. Ibid p.34.
5. Robert Stocks, Letter Book, 27/8/1821.
6. F.H. 16/12/1824.
7. Robert Stocks, Letter Book, 12/1/1820. Robert Stocks to the Earl of Rosslyn. 19/3/1825 R.Stocks to William Temple.

The increases were greatest on coarse goods because these were also the first to be effected by a depression and as demand rose weavers turned to the finer quality linens. As wages rose, productivity and quality declined,⁽¹⁾ and the weavers became choosy in whom they worked for and at what wage. In 1824, Stocks wrote to the Glasgow merchants G. & K. Young and Co. "The weavers are getting higher wages and will we fear be ill to manage"⁽²⁾ In 1825, as depression threatened, Stocks wrote "Our weavers are getting on very slowly as is always the case when wages are high"⁽³⁾ The impression of the weavers doing as little work as was strictly necessary is increased by Stocks' letter to John Lund in June 1823, "We expected to have been able to have sent the 4/4 Ticks long ere this but all we can do we cannot keep some of our weavers at their work in this warm weather."⁽⁴⁾ The evidence would suggest that the weavers were able to maintain a degree of choice during periods of increasing wages. The manufacturers, however, had an answer. With a limited capital outlay, £300 in the case of Robert Stocks,⁽⁵⁾ they could provide tied housing for weavers, who were then obliged to take the master's goods at his price. Robert Philp had 27 houses for weavers in Kirkcaldy and as early as 1811 James Normand had feued land in Dysart from the Earl of Rosslyn to provide accommodation/

1. Ibid. 27/9/1821.

2. Ibid. 24/5/1824.

3. Ibid. 31/10/1825.

4. Ibid. 12/6/1823.

5. Robert Stocks and Co. Day Book No. 1 31/5/1813.

accommodation for weavers.⁽¹⁾ Robert Stocks summed up the position manufacturers were faced with as wages began to rise in the twenties "... at present there is such a demand for goods that the weavers have become rather shy, and we are glad to give to some such work as they will take which will be inconvenient for some time, but having a number of weavers in our own houses upon whom we can at all times depend we expect soon to have our assortment completed again."⁽²⁾ As time went on, the weavers continued to assert their independence, held out for higher wages and refused to take checks but capital was on the manufacturers side. "In consequence of our weavers being in a kind of ferment we find it will be difficult to get on with the fine linen checks we have however got a few into our own houses and we shall not put a single piece past you."⁽³⁾

Until the second quarter of the nineteenth century, the main factor determining the weavers' subsistence was the price and availability of food, which effected commerce generally. Thus, in 1772 to 1773, in the crisis sparked off by the failure of the Ayr Bank and a period of poor harvests, wages fell below the level of subsistence in the East of Scotland. Wages were reduced from 10/6 to 8 or 9 shillings for a man per week. In his evidence to the Committee on the State of the linen trade in that period, Mr. Maxwell of Dundee stated "this is not sufficient/

1. Bryson, The Industries of Kirkcaldy, p.59.
2. Robert Stocks, Letter Book, 8/6/1821.
3. Ibid. 14/4/1825. R. Stocks to N. & S. Caw, Glasgow.

sufficient to sustain a man with an usual family in oatmeal, which is their chief subsistence."⁽¹⁾ The result was what an earlier generation of Englishman would have called "tumults in clothing counties". Richard Neilson, the Dundee Stampmaster observed "these tumults prevail only in this and the neighbouring linen counties of Perth and Fife."⁽²⁾ In Cupar on New Year's Day 1773, a meal mob gathered in the town; when some weavers refused to join the mob intent on stopping a shipment of meal from Balmerino they had their webs cut. The Scots Magazine goes on to say that on the 7th "A great mob to the number of 900 to 1,000 gathered at Cupar" and looting took place.⁽³⁾ When output and wages rose in the seventeen nineties Beatson reminds us that *pari passu* "The price of provisions has of late increased very much, in consequence of the flourishing state of the Manufactures carried on within the county."⁽⁴⁾ Taking Dunfermline as an example, dearths continued throughout the period. In 1757, a committee of the incorporations had been appointed by the Town Council "to concert anent the best method of commissioning" food from England and in 1770 there had been meal mobs in the town.⁽⁵⁾ In 1782, a temporary provision society for importing oats was continued and in both 1800 and 1826 Dunfermline joined with other incorporations in shipping meal from abroad.⁽⁶⁾

Evidence does suggest that, despite the weavers' continued dependence on the vagaries of the harvest, the closing decades of the Eighteenth/

1. B.P.P. 1773, Reports, Volume 3. Committee on the Present state of the Linen Trade p.102.
2. Ibid. Appendix No. 3. Letter from R. Neilson, Dundee.
3. Scots Magazine, 1773 p.16.
4. Beatson, General View of the Agriculture of Fife, p.17.
5. Henderson, Annals of Dunfermline, pp.469 and 491.
6. Thomson The Weavers Craft, pp.251; 291; 298.

Eighteenth century and the first years of the Nineteenth were a unique period for the handloom weavers of Fife. In the field of housing, many weavers were able to feu and build their own homes at this time. The exact number of feus given to weavers can not be accurately calculated as many of the original titles were not registered in the Register of Sasines, reference to weavers being found only in subsequent praecpts of clare constat and dispositions of property, land however for weavers' settlements was feued throughout the county. In 1776 Pennant described Pathhead as "... a place of check weavers and nailers: a modern creation, for within these sixty years, from being scarcely inhabited, about four hundred families have been collected by the encouragement of feuing."⁽¹⁾ At the end of the century there were a number of streets built exclusively for weavers' houses and shops. It was noted in 1800, "The houses are neat and clean, and each has a good garden and other conveniences behind, it is entirely occupied by weavers and commands a charming prospect of the Firth of Forth."⁽²⁾ In the Linktown at the other end of Kirkcaldy, the increase in weaving at the end of the century led Ferguson of Raith to feu out land on a regular plan. The Nicoll Street area contained 780 inhabitants "almost all operative weavers"⁽³⁾ In the centre of the county, Freuchie and the Newton of Falkland were said to be inhabited principally by feuars engaged in handloom/

1. Pennant, op. cit. p.202.

2. Kirkcaldy Public Library, Notes of a Tour through Fife, 1800 p.8.

3. N.S.A. Vol. 9. Fife p.159.

handloom weaving.⁽¹⁾

In the West, the activity of Mark Stark on the outskirts of Dunfermline encouraged house building at Brucefield where Mercer, in 1825, said there were "a number of pleasant feus, built a good many years ago, and all occupied by table linen weavers."⁽²⁾ Knabbie Street in Dunfermline was so called because the well-to-do weavers living there were called "nabbies" a corruption of nabob. Rolland Street, Moodie Street and Reid Street were developed as weavers' settlements, the Abbey providing a convenient quarry for building materials.⁽³⁾ To the west of Pittencrief Glen, on the estate of William Hunt of Pittencrief a new weaving suburb was set up with solid weavers cottages with long gardens, contrasting with the weavers accommodation in the two storey limestone tenements in the Campbell Street area built from the late twenties. Though many weavers owned their own houses these were certainly unpretentious, if one can agree with Cobbett's conclusion: "Dunfermline.... is like all other manufacturing places, more abundant in small and mean houses, than in houses of a different description."⁽⁴⁾

Another important feature of the period was the growth of friendly societies. Such organisations as the Callatoun Lodge of Apronmen, formed, in 1824, and comprising mostly weavers, entering between the ages of 26 and 35, gave not only useful experience in the organisation/

1. Ibid p.939.
2. Mercer, History of Dunfermline, p.185.
3. Henderson, Annals of Dunfermline, p.254.
4. W. Cobbett. Tour in Scotland, p.127.

organisation of self help societies, apart from their benefits to members, but provided, with its colourful yearly procession on Gallatown market day, much needed ceremony and brightness to the workers' lives.

(1) There were weavers societies in most of the towns and villages of Fife, such as the Ceres Society formed in 1795. In Dunfermline, there were 12 Friendly Societies at the time of the O.S.A. The Ancient Society of Gardeners, founded in 1716, comprised mainly weavers by 1800 and aimed not only to encourage horticulture but to pay funeral money and provide annuities for those over 65. The Society had functions and dinners and organised "parades round the town with officials in full robes". In 1842, the Society had 342 members.

(2) Most important was the Ancient Society of Weavers, incorporated as a Friendly Society with 100 members in 1786. The rules of 1796, restricted entry to those between 15 and 40 on payment of a 2/6d entry fee, the quarterly payment being 1/-. Significantly, the quarterly meetings of the Society were to be held at 2 and 4 p.m. After three and a half years, members could receive 2/6d per week for disablement and 1/3d for partial disablement or inability to work through old age. Significantly, only those continuing their quarterly payments could receive benefits. There was a 30/- funeral payment and small amounts for women and children. Loans could also be made to members with the Committee's agreement. "The Society agree to have a parade annually on June Fair Days and that the preses/

1. The Society continued in existence till 1894 when its flags and aprons were sold F.F.F. 25/9/1894.
2. Fernie, History of Dunfermline, p.52.

preses, Treasurer, with six of a committee, shall have the sole management thereof" (1) The Society rose to a peak of 454 members in 1814, falling back to 275 by 1826. (2)

Amongst the weavers there was a spirit of cooperation which was to find new life in the difficult times of the Eighteen thirties and forties. In 1816, the Links Meal Society was formed and soon after an offshoot, the Links New Bread Society, at £1 share in which, entitled members to buy bread and draw a dividend. (3) Within the Weaver communities Societies were set up for hiring out reeds and niffles to members on a cooperative basis, these items being essential but beyond the individual's means for a full set.

The weavers have often been accused of physical degeneracy, a theory which the extent of part time agricultural labour may belie. Jolly, in his life of John Duncan, quotes a farmer's apocryphal remark when needing men on the farm, "Run to Stanehyde and get as many men as ye can if ye canna get men, get weavers or anything" (4) In spite or because of this weakness there was a strong element of radicalism in weaver Society in late eighteenth and early nineteenth century Fife, particularly in the Linktown near Kirkcaldy. The Linktown was represented at the second general convention of the Friends of the People in April and May 1793 and in 1816, Major Cartwright, the radical, made two visits to Kirkcaldy. (5) At Dunfermline in 1798, in the atmosphere of repression/

1. Dunfermline Public Library; Articles of Constitution and Regulations of the Ancient Society of Weavers, Dunfermline, (printed in Edinburgh 1796).
2. Fernie, History of Dunfermline, p.52. Mercer, History of Dunfermline, p.143.
3. Davidson, Linktown of Abbotshall, p.69.
4. W. Jolly - Life of John Duncan, Weaver and Botanist, p.22.
5. Dawson, op.cit. pp.76 and 79.

* Niffer An appliance consisting of an upper and lower slot of wood with pins set in at short intervals, comb fashion between which the web is spread evenly on the beam of the loom before weaving commences.

repression prevailing, the Dunfermline weaver David Black was outlawed whilst James Paterson was transported,⁽¹⁾ whilst the son of Skirving the political martyr worked as a weaver in nineteenth century Kirkcaldy. In 1816 about 2,000 attended a meeting in the Linktown, Ninian Lockhart being preses, to protest at the scale of taxes, and the expense of the Civil List and the army, sanctioned by a corrupt House of Commons and, in 1819, a much larger meeting was held to condemn the official action taken to break up a meeting at Manchester (Peterloo) and its support by the government.⁽²⁾

Summing up the weavers' condition Mercer said "In general they are in tolerably comfortable circumstances, well lodged, clothed and fed and their labour is not oppressive".⁽³⁾ It was common in the Autumn for weavers in the towns to buy up whole drills of potatoes for storing over the winter,⁽⁴⁾ suggesting that they were not just living from day to day. Mercer too, believed that in Dunfermline "attendance on public worship is general throughout the community.... in most manufacturing towns it is too common among the artisan to spend the whole Sunday in the vilest dissipation"⁽⁵⁾ Five weavers also had the fortune to be nearby large supplies of coal which was cheap, because of the expense of sending it to the sea, as was the case in Markinch parish.⁽⁶⁾ Here too, unlike many parishes where the heritors were absent, adequate funds were provided for/

1. T. Johnston, History of the Working Class in Scotland, p.233
2. Proceedings of a meeting at Linktown of Kirkcaldy 3/11/1819 to take into consideration the proceedings at Manchester
3. Mercer, op.cit. p.195.
4. O.S.A. Wemyss, XVI p.513.
5. Mercer, op.cit. p.193.
6. O.S.A. Markinch, XII p.550.

for the poor, John Balfour of Balbirnie believing that this "has tended very much to keep everything quiet in this parish."⁽¹⁾

The mark of the weavers of these decades was their sturdy independence in a period of growing demand for their labour before the market was flooded by new entrants to the trade and weavers' wages were driven down in the competition with cotton goods. Although the weavers were largely employees, there was no common dislike of a superior manufacturing class as long as the employers remained scattered and the weaver had the chance, in a still lightly capitalised industry, to become a manufacturer himself. To some extent the weavers could still fall back on their agricultural connection. However, the weavers' independence was beginning to breakdown. Factory communities such as Kirkland and Prinlaws were being created which attracted weavers, who were tied to the mill complex. With the introduction of canvas weaving and the growth of the fine Damask-trade, looms became too expensive for a weaver to buy and were gradually provided by manufacturers on an increasing scale under factory conditions. With the introduction of Jacquard weaving from 1825, the cards were owned by the employers, tying the weavers to them, as did the provision of housing by manufacturers. The handloom weaver could theoretically work when he chose but as early as 1816 a weaver had to work at least twelve hours per day to gain "a comfortable subsistence for his family."⁽²⁾ Further, manufacturers/

1. S.R.O. Leven and Melville Papers, GD 26/V/21. John Balfour to Lord Balgonie c.1800.
2. B.P.P. 1816, Vol.III Report of the Select Committee on the state of children in Manufactures p.143.

manufacturers began to stipulate the time in which a web should be finished. On John Fergus' weavers tickets given out with his yarn a fine of 1/- was imposed for every week a web was out beyond the stipulated time. (1)

It would be hard to describe this period as the "Daisy portion of weaving", (2) however, at the end of the eighteenth century and in the first decades of the nineteenth, the handloom-weaving communities had begun to forge a social structure based on home ownership, cooperation, friendly institutions and political awareness. The well-known decline of the handloom weavers is the story of the losing battle to maintain this way of life, the loss being reflected in the void which emerges in life society in the middle of the century, only to be partly filled by the reawakening of political awareness and the beginnings of trade union activity at the start of the twentieth century.

1. Kirkcaldy Technical College, John Fergus papers, Miscellaneous.
2. W. Thom, Rhymes and recollections of a Handloom Weaver, p.3.

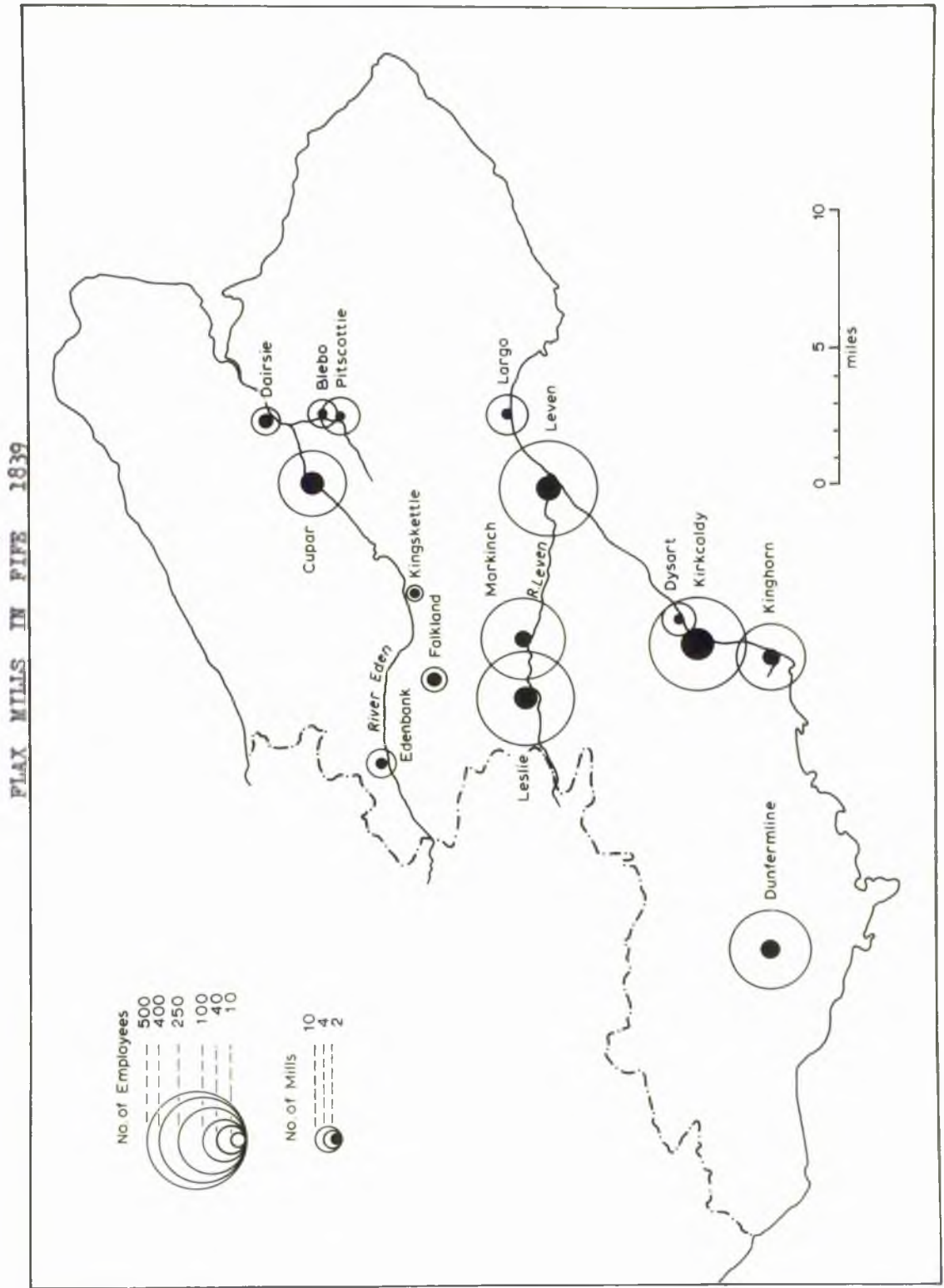
CHAPTER 5

The Fife Linen Industry in the Era of the Factory Inquiry Commission and the Handloom Weavers' Commission

The Government inquiries of the Eighteen-thirties into the conditions of life in the spinning mills of Britain and the plight of the country's handloom weavers, forced the nation's attention on life in factory and loom shop. In this chapter it will be shown what life was like in a Fife flax spinning mill, in the light of the Factory Inquiry Commissioners' evidence and how conditions changed as the Factory Acts of the thirties and forties were applied to Fife. Special attention will be paid to the part played by the man most responsible for enforcing the Government's legislation in the crucial years from 1833 to 1847, James Stuart of Dunearn. It will also be shown to what extent the Handloom weavers' standards declined and why this happened, also the attempts which were made to forestall their inevitable decline; but before examining the conditions of life in the mills, it is first necessary to explain the overall development of the industry down to the middle of the century.

By 1828 there were some 34 mills in Fife; nearly all small concerns, steam powered in Kirkcaldy and Dunfermline, water powered on the rivers Leven and Eden. Apart from these small concerns, there were the large Kirkland Works of Neilson and Company, and Prinlaws, acquired by John Fergus and Co. in 1827. By the late thirties there were some 46 mills in the county, employing over three and a half thousand employees, nearly two thirds of whom were female. (See map) In the difficult forties both the number of mill workers decreased and mills began to decline, as some/

Figure 3



some mills closed or were turned to other uses; others reverted to the production of corn and meal, which had been their earlier function and yet others were amalgamated into large businesses, as at Prinlawa, or in the case of Swan Brothers, at Kirkcaldy and Kinghorn. By 1857, as the accompanying table shows, the number of spinning mills in Fife had declined to twenty-seven, employing 3,293 persons. It is a mark of the continued use of old methods that, of the 939 horse power used to drive the county's flax spinning machinery, almost exactly one third was still water powered.

Improvements in steam power encouraged the development of mills in Kirkcaldy; the first, being that of a Baillie Hendry in 1807.⁽¹⁾ This was followed by mills in the East of the town in the Coal Wynd area, using water from disused coal workings, beginning with Birrell's mill 1812, under the firm of the Kirkcaldy Spinning Co.⁽²⁾ These were followed by the Coal Wynd old and new mills which, after passing through several hands, were bought by Swan Brothers in 1840, from the estate of William Kirk.⁽³⁾ At the other end of the town there were 2 significant mill complexes. On the death of Robert Philp in 1828, the mill he built in 1815, containing 400 spindles was purchased by J. & W. Hendry, who built a large new mill on the site in 1856.⁽⁴⁾ On the site of William Greig's/

1. Bryson, Industries of Kirkcaldy, page 31.
2. S.R.O. Sasines, places Fife 1781-1820 No. 9462 2/3/1812.
3. F. H. 30/7/1840; Bryson, op.cit. p.22
4. Bryson p.16.

Table 6

Flax Spinning Mills 1828 to 1857

Year	Mills	Power H.P.		Employees		Total	
		Steam	Water	Male	Female		
1828	34						(1)
1834	-		744			2669	(2)
1839	46		987	991	2646	3639	(3)
1841	-			711	2453	3164	(4)
1857	27	635	304	703	2590	3293	(5)

1. Pigot's Directory 1828.
2. B.P.P. 1834 XLIII p.423 First Report, Inspector of Factories.
3. B.P.P. 1839 XLII p.362 Return of Number of Factories.
4. B.P.P. 1841 XLVI p.619 Number of persons employed in flax factories in Scotland.
5. B.P.P. 1857 XIV p.186 Return of flax factories in Scotland. There were then 44,424 Spinning Spindles in the county.

Creig's horse-powered spinning mill, James Aytoun, formerly of Kinghorn, Haughmill and Neilson and Co, Kirkland, built the Thistle Mill in 1822, the Rose Mill in 1825 and the Shamrock in 1842.⁽¹⁾ By 1832, there was a maximum of 10 mills in the town⁽²⁾, all of which were small, for, in 1837 there were but 721 spinners in the Kirkcaldy area.⁽³⁾

Dunfermline, which like Kirkcaldy, lacked suitable water supplies for a large water-powered spinning industry had a total of seven spinning mills with 7,794 spindles in 1836,⁽⁴⁾ the largest of which was Rutherford's Mill, built on the Baldrigeburn in 1816, using a 28-horse power steam engine and employing 210 people in 1836.⁽⁵⁾ In 1835 it had been stated in the report on the Municipal Corporations of Dunfermline's mills, "The spinning of flax by machinery, which has for some years been carried on extensively in Dunfermline may be considered as one of the greatest benefits to the manufacture of Damask as it provides the manufacturer with yarn of a quality, which a few years ago he could not procure upon any terms."⁽⁶⁾ Sadly, such optimism had no foundations, as/

1. Ibid p.32.

2. Chambers Gazetteer of Scotland, 1832 p.658

3. F.H. 12/1/1837 In the Kirkcaldy area there were

3000 Weavers)	
721 Spinners)	Total
242 Hecklers)	
230 Bleachers)	=
236 Winders)	4639
40 Warpers)	
70 Warehousemen and manufacturers.)		

4. Henderson, Annals of Dunfermline p.621

5. B.P.P. 1840 X S.C. on Mills and Factories, Appendix No.1 p.645

6. Corporations Scotland (General Report and Local Reports 1835) p.255

as the Dunfermline mills were unable to weather the depression of 1837 and the subsequent difficulties in the 1840s. At least three mills stopped in 1837 and, although they were started again, were soon to close or be converted to other uses. The Knabbie Street Spinning Co's works with 1308 spindles for wet and dry spinning was offered for sale in May 1843.⁽¹⁾ The small Millport Spinning Co, built in 1824, was offered in September 1844⁽²⁾ and the Baldrige Works of R.H. Robertson and Company comprising a 3-flat spinning mill and a Damask and Sheetting factory with its thirty-five-horse power Fairburn of Manchester condensing engine was put on the market in 1849.⁽³⁾ The only mill to survive was the Clayacres Mill, built in 1817 and purchased by John Marshall from the Trustees of Arthur Aitken and Co. who failed in 1837.⁽⁴⁾

Elsewhere in Fife, mills were built and extended on the Ores burn, notably by W. & J. Yool, on the Eden, Russell Mill was built up by George Moon and Hospital Mill from 1821 by William Kyd, whilst other mills such as Cupar, Tailabout and Lydox were partially converted to flax spinning. There were small developments in Kennoway Den and at Kirkforthar by Scott and Taylor. In Kinghorn, the mills of Charles Arthur and Company, which had been long associated with the Swan Family were gradually taken over by Swan brothers following Arthur's failure in 1837 and 1842.⁽⁵⁾ There were also some five small mills in the parish/

1. F.H. 4/5/1843
2. F.H. 12/9/1844.
3. F.H. 24/5/1849
4. F.H. 28/12/1837.
5. S.R.O. CS 46/73/March 1838; CS 280/10/4 - Sequestration of Charles Arthur & Co, Kinghorn.

parish of Scoonie, (Leven) with about 200 employees between them, in 1836.⁽¹⁾

However, the focus of development continued to be the River Leven, but progress was hampered by disagreement between the millowners and the owners of the land around the Loch. The Wemyss family had the ancient right of redding (clearing) the

mouth of Loch Leven in dry weather to increase the flow of water, the right being sold to Neilson and Company in 1789.⁽²⁾ By 1800

development of the river was such, that greater control was needed, and Lord Leven, John Balfour and the Mill proprietors proposed a

sluice on the Loch to regulate the flow in the river. This was vigorously opposed by the Loch-side proprietors. In 1809 the

proprietors proposed to drain the Loch but this was opposed by the millowners, who feared this would make the water supply more

irregular. At a meeting of the Leven spinners at the New Inn, a committee was formed to raise money to protect the millowners' rights, drain and dyke the Loch and provide a sluice.⁽³⁾

Little action was taken till the late twenties. In 1826 a severe drought caused production/

1. B.P.P. 1840 X S.C. on Mills and Factories, Appendix II part VIII p.656. Hawkshaw, feued from Christie of Durie by H. Balfour & W. Bisset, was bought by Alexander Boswall, formerly of E. Prinlows, at Bisset's failure (1837). In 1852 Boswall leased Millfield Mill previously used by H. Balfour and Co. At Boswall's sequestration in 1861 (CS 318/7/26) the mills were sold to J. & P. Coats. They were later acquired by Small & Boase.
2. S.R.O. Leven and Melville papers, GD 26/V/728. S.R.O. CS 232/W/23/2. Wemyss C. Peter 1826.
3. S.R.O. Rothes papers GD 204/68/5. Meeting of the Leven Spinners at New Inn 10/10/1809. Those attending were James Bisset, Prinlows, Alexander Robertson, Nether Priam Robert Kirk, Sparrow Mill Andrew Haggart, Leslie Lint mill Andrew Cant, Leslie Spinning Mill William Drummond, Milton of Balgonie James Aytoun, Haugh Mill. John Drummond, Kirkland.

Significantly these were, apart from Shythrums Mill, Markinch, converted in 1849 (F.H. 7/6/1849), the only sites developed for flax spinning on the river, though Sparrow Mill was a snuff mill at the time.

production losses and in 1827 the dynamic figure of John Fergus was added to the corpus of millowners, and trustees were set up to raise money to provide a cut to drain the upper reaches of the river. The water was turned into the cut on the 22nd of June 1832.⁽¹⁾ By then the cost had risen to £36,502:19:11d.⁽²⁾ and such were the arguments over the payment for the scheme that the Commissioner appointed by the trustees was not discharged till 1849.⁽³⁾ The improvements on the river facilitated the growth of large-scale firms in both flax spinning and paper making, prolonging the use of water power into the twentieth century; the large financial burden helped to cripple the already-marginal small firms.⁽⁴⁾

The largest works were those of Neilson and Company at Kirkland and Prinlaws works bought by John Fergus in 1827. At a contract of copartnery in 1814 the capital of Neilson and Co. amounted to £32,000, held largely by John and James Peter and John Drummond, (brother of William Drummond owner of Balgonie Mill.)⁽⁵⁾ In 1833, the mills were still water powered only, using a 16 ft. broad 19½ ft./

1. River Leven Trustees, Sederunt Book No. 3 5/1/1831 to 2/10/1833.
2. Ibid 21/6/1832.
3. River Leven Trustees, Sederunt Book No. 5 8/8/1849.
4. R. Leven Trustees, Letter Book 18/3/1831 to 11/7/1842, p.381. Cant, Haggart and Kirk all found difficulty in paying their assessments. Kirk at the time of his sequestration in 1835 owed £817.17/- on his three mills. Cant owed £225:16:7d. In a letter of 20/4/1841, the Clerk to the Trustees wrote to the Commissioner "I am sorry to learn that Cant's matters look very ill I am told the machinery in his mill is not worth £50 and his lease has just one year to run."
5. S.R.O. CS 239/D/24/12. John Drummond v. Neilson & Co. 1817.

ft. diameter wheel, generating 80-horse power.⁽¹⁾ By 1836 the mills were employing some 600 workers, in both spinning and weaving.⁽²⁾ Thereafter the company ran into difficulties, borrowing heavily and failing in 1842.⁽³⁾ By the sixties the firm was employing some 500 hands and consuming 1500 tons of flax, hemp and jute per annum, using 150 horse power, half steam and half water.⁽⁴⁾ As soon as Fergus took over Prinlaws, he put in a 14-h.p. steam engine and bought wet spinning machinery.⁽⁵⁾ The works were greatly increased by the purchase of East Prinlaws Mill, previously tenanted by Alexander Boswall, in 1839,⁽⁶⁾ and by the building of Milldeans Mill and the North Prinlaws Mill. Thus whereas there were some 320 employees in 1836, within twenty years that number had risen to about 1000 workers.⁽⁷⁾ The Mill Ledger for 1850 to 1852 suggests that by then the capital of the Company was some £60,000 and the works themselves were insured by the Phoenix Co. for £42,704.⁽⁸⁾

Haugh Mill which had been owned by various companies, stood empty/

1. B.P.P. 1833 XX 1st Report of H.M. Commissioners as to the Employment of children in Factories p.177. Chambers Gazetteer 1832 p.723.
2. B.P.P. 1840 X S.C. on Mills and Factories Appendix I part II p.646.
3. River Leven Trustees, Letter Book op.cit. 3/2/1842.
4. Warden, The Linnen Trade Ancient and Modern, p.537.
5. River Leven Trustees. Sederunt Book No. 3.
6. S.R.O. Sasines Fife Persons 1821-1830 No. 3623. Boswall moved to Leven.
7. Fife Herald 21/8/1856. John Fergus and Co. Ledger shows wages for millworkers alone at £8049 for the year 1850, suggesting over 600 employees in the spinning departments, heckling and bleaching wages being calculated separately.
8. John Fergus & Co, Ledger 1850-1852 f 1 and f 139. The premium was £353.11. 9d.

empty for two years on the failure of Alexander Robertson,⁽¹⁾ till purchased in 1832 by George Wilson who held the mill till 1860. On taking the mill over he put in new fine spinning machinery and by 1836 the Mill had 2000 spindles.⁽²⁾ Finally, Balgonie Mill which in 1830 contained 1032 spinning spindles⁽³⁾ was, after some delay, sold to Robert Baxter of Dundee, who was joined in partnership by J.G. Stuart, a young Edinburgh lawyer.⁽⁴⁾ This mill depended largely on water power, Stuart being given a prize for his developments in the use of water power, by the Royal Scottish Society of Arts, in March 1846.⁽⁵⁾ At the mill's failure in 1861 it was valued at £10,000 (though eventually sold for £7,000). It contained, along with the turbine water wheel and two condensing steam engines, 1808 spindles for dry flax spinning and 968 spindles for dry ~~tow~~ spinning and a heckling shop with five machines.⁽⁶⁾

The principal features, then, of the first half of the century were the uncertain emergence of four important firms on the river Leven, /

1. S.R.O. CS 44 Robertson August 1826.

2. N.S.A. Fife, p.676.

3. F.H. 2/12/1830. The Yarn produced was 3lb flax and 5 to 8lb tow.
the daughter of

4. Robert Baxter married William Drummond the founder of Balgonie mill. Gordon and Stuart, Lawyers in Edinburgh were agents for Col. Munro of Livingston who held a bond over Balgonie mill which was transferred to Alexander Stuart. The firm were also agents for Drummond's trustees (R. Leven trustees Letter /11/1834). J.G. Stuart (Alexander's son) was sent by the Company to manage its affairs at Balgonie and joined Baxter in the partnership of Baxter & Stuart. The relationship was cemented by Stuart's marriage to Baxter's niece. (James Stuart, Reminiscences).

5. B.P.P. 1847 XV p.481. Factory Inspector's report 1847.

6. S.R.O. CS 318/7/311. Sequestration of Staig & Stuart March 1861.

Leven, the growth of secondary firms on the Eden and Ceres Burns, the failure of flax spinning to be soundly established in Dunfermline, the growth and subsequent rationalisation of a number of small firms in Kirkcaldy and Kinghorn, which formed the nucleus of Swan Brothers, and the development of mills at Abbotshall and Westbridge (Aytoun, Hondry). Before discussing why the industry evolved as it did, it is necessary to describe the complementary bleaching trade and mention the machinery and raw materials used by the spinners.

In the early days of power spinning the heavy water-power units, the wheels and shafts, were largely made at local foundries such as that at Durie, whilst the early steam engines such as the Boulton and Watt engine installed by E. Birrell in Kirkcaldy in 1812 were imported.⁽¹⁾ However, in later mills and, as old engines became overloaded and needed replacing, the majority were made in the Kirkcaldy area by Alexander Russell and Son, J. Brown and Co. and J. Landale and Co. However, Bryson's assertion that mill spinning encouraged machine making, (three firms being set up employing some 200 men, making steam engines, spinning machines and doing repair work,) does not mean that the trade was largely supplied with locally-made spinning and preparing equipment. Increasingly, Fife was supplied with North-of-England machinery, the principal firms being Newton and Co, Fairburn and Co, Lawson and Co. and/

1. Bryson, industries of Kirkcaldy.

and Naylor and Co. of Leeds. Thus, in 1839, John Fergus bought wet spinning frames from Renton Murray and Co.,⁽¹⁾ Leeds and in 1851 bought £602 of machinery from Samuel Lawson and Sons, Leeds and paid Lord and Brook, engineers, Leeds, £3,270.16.6d.⁽²⁾ Similarly, when George Wilson reequipped the Haughmill between 1856 and 1860 his largest debts were to Naylor of Leeds and to the Manchester machine makers.⁽³⁾ As the century progressed, more machinery, especially for flax preparing, was bought from George Horner, Belfast, and much of the new machinery in the Duraden Works was made by Combe, Barbour and Combe of the Falls Foundry, Belfast. The Fife trade was not large enough to provide the markets and the interaction between engineers and textile producers, which were found in Leeds and Manchester and later, Belfast; hence the severe failure of Alexander Russell and Son of Kirkcaldy in March 1850, who were owing the Union Bank over £25,000.⁽⁴⁾ Russell was making and repairing spinning machinery for several local firms including John Fergus and J. & W. Hendry at the time of his failure.⁽⁵⁾ He emigrated to Costa Rica, where he worked as an engineer, before returning to Kirkcaldy as a commission agent in 1860. In 1863 he set up as a powerloom manufacturer/

1. Kirkcaldy Technical College, Fergus papers 17/12/1839.
2. John Fergus & Co. Ledger 1850-1852 ff 373 and 447.
3. S.R.O. CS 318/11/342 George Wilson's sequestration.
4. Rait, History of the Union Bank page 287.
5. S.R.O. CS 280/38/135. Alexander Russell and Son's sequestration 1850.

manufacturer and had made 350 looms by August 1865; by December 1866 Russell however had failed again. At his sequestration, looms were in progress for four local firms and he had made £9,000^{worth} of looms for Drummond Baxter and Co. of Lille. (1)

In the supply of raw materials, Fife was even more dependent on imports than she was for the supply of machinery; the quantity of home grown flax being very small and attempts such as that of John Fergus at Retford (Thornton) in the ^{Fifties} 50s to reintroduce home grown flax on an extensive scale being short lived and unsuccessful. As early as the seventeen-seventies, Loch reported that John Fergus and Sons of Kirkcaldy were using nothing but imported flax. (2) In the Eighteenth century flax was imported by general merchants. An inventory of the goods in the cellar of the Dysart merchant, Bennet in 1786 includes tea, flax, tow, and rum. (3) In the first part of the Nineteenth century, the important Kirkcaldy merchant, George Elder, who also supplied John Fergus with much of his bleaching requirements, imported large quantities of flax. There was a close interaction between manufacturer and merchant, because, as most of the flax was bought on commission, men of limited capital, sometimes began as commission agents before investing their profits in spinning or weaving. Thus, George Birrell who took over Elder's business had previously been a Clerk/

1. S.R.O. CS 318/12/345. Thomas Russell's failure 1866.
2. Loch. op.cit. II p.40.
3. S.R.O. CS 96/56. Bennet's sequestration 1786.

Clerk to John Fergus and combined buying and selling flax and flax goods with Fire, Life and Marine Insurance agencies.⁽¹⁾ Also bleachers, such as David Landale at Lochtyfield or Tullis at Rothasfield extended their commission business to include flax and yarn merchenting. The shipping returns for Kirkcaldy for the 1830s listed in the "Fife Herald," give an indication of whom the flax cargoes were for. Many were for merchants such as George Elder, Alexander Struthers and David Landale, acting as agents for foreign houses. Thus, Robert Kirk at Leslie made purchases from Alexander Struthers, from the Dundee merchants, Guthrie and Baxter, and from Robert Jobson, acting his largest purchases being from George Elder/as agent for James Hill and sons.⁽²⁾ Other purchases were made by spinners, such as William Swan and Neilsons of Kirkland, importing for their own uses and also for sale on speculation.

Although the "Herald" could comment that there was no significant flax market in Kirkcaldy, "As our spinners are fairly supplied by their own direct importations,"⁽³⁾ there was a growing dependence on the rising flax market of Dundee, as a sophisticated futures trade began to develop. The striking growth of Dundee as a flax importing centre can be seen from the following table.

Importation/

1. S.R.O. CS 318/19/18. George Birrell's sequestration 1860. Birrell became agent for flax houses in Hemel, Riga and St. Petersburg.
2. S.R.O. CS 318/17/177. R. Kirk's sequestration Dec. 1835.
3. F.H. 20/9/55.

Importation of flax in cwt. to 1st of January in each year. ⁽¹⁾

	<u>Dundee</u>	<u>Leith</u>	<u>Kirkcaldy</u>
1820	63002	36166	8969
1821	78222	29904	14058
1822	114714	28211	32445
1823	133095	30515	24760
1824	97843	35748	22820
to 5/1/1831	368962	18632	43737

By the end of the nineteenth century nearly all Fife's flax was coming from Dundee, with small quantities from Leith, the exception being John Fergus and Co. who imported to Burntisland and Methil. Not only had Dundee monopolised the merchanting business but, the increasing use of large ships compelled firms such as Fergus and Swan to stop shipping their flax; but Kirkcaldy did not provide a large enough market for large ships, bringing general cargoes, ^{and} besides, the harbour at Kirkcaldy was inadequate, the N.S.A. having commented, "the want of a good harbour has long been felt and complained of" ⁽²⁾ Further, from 1847 Dundee flax could be brought through Fife by rail and with the introduction in 1852 of the/

1. B.P.P. 1823 Vol XIII p.487. An account of the quality of undressed flax imported 1820-1823
 B.P.P. 1824 Vol XVII p.173 do 1824
 B.P.P. 1831-2 Vol XXIV p.345 do 1831
2. N.S.A. Fife p.759; FH. 27/12/1855. By then flax ships unable to enter Kirkcaldy.

the rail ferry from Dundee to Tayport through transport of trucks from Dundee to Fife was facilitated.⁽¹⁾

Warden tells us, that sometimes spinners contracted with agents during the winter for flax to be shipped by the Baltic merchants at the opening of the navigation in the spring;⁽²⁾ the most common method was for foreign merchants to consign flax to their agents in Britain to sell on commission, "The most legitimate mode of conducting business and the most convenient to the spinner", he believed.⁽³⁾ The buying season for flax was the autumn, when requirements for forward delivery were purchased, little, spot flax being bought. Firms would send samples of the quality they wanted to their agents and to the exporting merchants; while the merchants sent out samples of the year's crop to agents and spinners; in other cases, firms would guarantee that the shipments made by them would be up to the standard of the average quality of the season's best shipments, or the same as samples examinable in the agent's warehouse.⁽⁴⁾ The principal suppliers of flax were London merchants, usually through their branches in Dundee, notably Hill and Renny and W.F. Malcolm and Co, though important Dundee/

1. Beekles, the Development of the port and trade of Dundee pp 64 and 79.
2. Warden, op. cit. p.621.
3. Ibid 632
4. Fergus papers - miscellaneous papers relating to flax purchase.

Dundee based companies such as David Martin and Co. took much business.⁽¹⁾ Thus, in 1845 we have Joseph Dodson of London notifying John Fergus of the purchase of Archangel flax.⁽²⁾ In 1858 Armistead, of London, wrote to Fergus quoting the price of flax on offer.⁽³⁾ Whilst, at their sequestration in 1861, Staig and Stuart of Balgonie Mills owed large amounts to J. Gordon and Co., Dundee, agents for Anthony Rucker and Co, Riga; to David Thom, Leith, on account of J. Tod, London; to Robinson and Fleming, merchants, London, sole agents for Cattley and Co. St. Petersburg and to R. Fleming, Dundee, agent for Cummin and Co., merchants, Riga.⁽⁴⁾

The skilled purchase of flax was an integral part of successful business, but only large firms, such as John Fergus and Co., had the resources to operate on a large scale. John Fergus himself was a merchant in St. Petersburg before he took over the Prinlaws Works and H.T. Peter of Neilson and Co. Kirkland, was married to a Livonian.⁽⁵⁾ The importance attached to flax purchase, is highlighted in the Fergus papers, where in the Eighties, James Porter, a partner, checked the details of every flax purchase. He also travelled to St. Petersburg and a St. Petersburg merchant/

1. Ibid. I am indebted to Mr. Mackie, a director of N.&N. Lockhart, Bennoch Works, Kirkcaldy, for over sixty years for explaining to me the way that flax was purchased. (Present day requirements come largely by lorry from Belgium).
2. N.L.S. Fergus papers MSS 3764 8/10/1845.
3. Ibid do do 9/6/1858.
4. S.R.O. CS 318/7/311. Sequestration of Staig and Stuart, Balgonie Mills, March 1861.
5. F.H. 12/10/1837.

merchant came to Dundee to arrange the purchase of flax for John Fergus and Co.⁽¹⁾ In 1841, a Fernau dealer wrote to John Fergus advising him to order large quantities of flax, as the price was likely to rise due to the shortage of the crop.⁽²⁾ The Ledger of John Fergus and Co., for 1850 to 1852, reveals that Fergus was involved in large flax speculations both on his own account and on joint account with his Glasgow associate, Alexander Dennistoun.⁽³⁾ On 29/6/1850 £3,400 was put to the credit of Fergus' special profit and loss account on gains from his Archangel, Oberland, Riga and St. Petersburg flax transactions.⁽⁴⁾ The failure of a number of Fife firms including Staig and Stuart at the end of the decade underline the large sums which could be involved.⁽⁵⁾

As important to producers, as the supply of raw materials was the finishing of yarn and cloth. The last quarter of the eighteenth century had seen the spread of bleachfields along the River Leven, as manufacturers sought out the readiest supply of water for finishing their yarn, which they were using in increasing quantities. In the Nineteenth century the River Leven remained the county's main bleaching area, control remaining largely in the hands of Kirkcaldy manufacturers. In Kirkcaldy, Denburn, which had previously been partitioned out individually to/

1. Fergus papers, miscellaneous papers relating to flax purchase, notably 1868-1869.
2. N.L.S. Fergus papers. Ms 3764 10/12/1841.
3. John Fergus Ledger 1850-1852. ff 278/286
4. Ibid f. 383.
5. S.R.O. Staig and Stuart's sequestration - op.cit.

to the Pathhead feuars, was run commercially⁽¹⁾, whilst Tyrie was for much of the century in the hands of Swan Brothers. Elsewhere in Fife, fields were established at Cowdenbeath, Lochty (Thornton) Kirkforthar (Freuchie), Ceres, and latterly at Dunfermline where a Mr. Walker established the Elgin Bleachfield in 1851 for boiling and bleaching yarn.⁽²⁾

A feature of 18th century bleaching had been peoples' general distrust of bleachers' methods. Although some private bleaching continued, for instance, the Markinch north bleaching green feued from the Earl of Leven in 1808, to be run on cooperative lines with a Board of Management to keep regular books and plough any profit back into the field,⁽³⁾ the great majority of goods were bleached commercially. Home bleaching continued for goods produced for the house. Thus, in an inventory of the stock of Robert Watt, grocer in Kirkcaldy, in 1835, we find 3 cwt. starch, 4 cwt. pearl ashes, indigo, prussian blue and soda.⁽⁴⁾ Another feature of the nineteenth century was the growing use being made by Fife manufacturers of outside bleachers, as the production increased of goods bleached in the piece. Few Fife bleachers, continued to bleach cloth. As the output of Silesias and Britannias increased in North Fife, the use of the Perth/

1. Bryson, Industries of Kirkcaldy p.52.
2. Henderson, Annals of Dunfermline p.666.
3. S.R.O. Leven and Melville papers. GD 26/v/719.
4. Kirkcaldy Public Library. John Hutchison papers, uncatalogued.

Perth and Dundee bleachfields grew in proportion. Thus, in 1811 Thomas Chalmers and Co. of Auchtermuchty had £600 of Britannias at Stormontfield.⁽¹⁾ In the 1830s, Alexander Glenday of Cupar, had his yarn bleached by Scott and Taylor at Kirkforthar (Fechie) and his cloth at Douglasfield (Dundee),⁽²⁾ Whilst in Kirkcaldy, John Fergus and Sons were broadening their output to include white cloth, Walter Fergus sent cloth to Dollarfield from 1819 and to Claverhouse from 1821 - though he was not always satisfied with the results, for one bleaching entry reads "Deduct 15 yards No.3 out by rats etc. at 19d."⁽³⁾

For their supply of bleaching materials, Fife firms relied very largely on Charles Tennant and Co., of Glasgow. At the end of the eighteenth century, some "oil of vitriol" had been supplied by the Burntisland Vitriol Co; Thomas Wright at Prinlaws' debt being £218. 5. 6d., by the time of his failure in 1807.⁽⁴⁾ Some bleaching materials may have been made by the bleachers themselves. An item in the inventory of Scott and Taylor, Feuchie reads, "a lead still for making oxygenated Muriatic Acid, with lead pipes, tankers, receivers, driving gear and wooden spout £80."⁽⁵⁾ However, Charles Tennant and Co. continued to dominate the supply of materials. In 1836 the firm setup a Sulphuric acid works in Carnoustie/

1. S.R.O. CS 96/1210. Report on the M.P. Thomas Chalmers and Co. 1826.
2. S.R.O. CS 46/41/April 1840. Alexander Glenday's sequestration 1836.
3. Journal op cit. 18/12/1821.
4. S.R.O. CS 96/1057 T.Wright, Prinlaws, Sequestration 1807.
5. S.R.O. CS 96/791. Scott and Taylor's sequestration 1839.

Carnoustie to supply the Forfar and Fife trade and they also had a plant at Thornton, for David Dobie of the Haugh bleachfield was owing Charles Tennant at the Orr Bridge Vitriol Work, at his failure in 1840.⁽¹⁾ The latter plant can not, however, have been successful, for it was this site, which was used by John Fergus for his flax factory, Later in the century, Wm. Boyd and Co. Chemical manufacturers, Thornton, supplied some chemicals for the trade, but over half the company's output of vitriol went to the Burntisland Oil Co.⁽²⁾

Although the development of the easily-transported bleaching powder, manufactured principally by Tennants at St. Rollox from 1798, revolutionised the linen and cotton trades by greatly speeding up the bleaching process, technical problems remained.⁽³⁾ In spite of developments, bleaching was greatly curtailed in the winter. Manufacturers, such as Robert Stocks, had to buy in large stocks of bleached yarn in the autumn to see them through the winter, just at a time when slackness in the weaving trade was reducing their cash flow.⁽⁴⁾ In the spring there was a rush to get yarn to the bleachfield to replenish supplies used up over the winter.⁽⁵⁾ Another problem was the laborious process of washing linen. From 1845 machine washing was introduced and overall developments were such that the price of bleaching/

1. S.R.O. CS 280/10/4. David Dobie's sequestration 1840.
2. S.R.O. CS 318/42/25. Sequestration of Wm. Boyd & Co. Chemical Manufacturers, Thornton, 1895.
3. H. Hamilton, *The Industrial Revolution in Scotland* p.103.
4. Robert Stocks and Co, *Letter Book* op.cit. 29/10/1824.
5. *Ibid* 23/2/1825.

bleaching was halved between 1830 and 1860.⁽¹⁾

The bleaching trade differed from that of spinning in that it was more capital intensive, though the same people were involved in both. John Melville at Prinlaws, and Archibald Neilson at Kirkland (both of these being integrated works), Mark Stark of Brucefield at Leven, Walter Fergus at Tyrie and Rothesfield and the Russells of Kirkcaldy at Rothes and later Balgonie; yet the high capital cost confined the trade to yarn bleaching. It was the lack of capital in eighteenth-century Dundee which led to the large bleachfields which were established there in the early nineteenth century, being financed by the old established Perth bleachers. The easy access to these fields and those at Dollar combined with the bleachers' cloth marketing⁽²⁾ facilities further preempted the development of cloth bleaching in Fife. Capital for bleachfields was raised in the same way as for other textile projects. Thus, at Haughmill field, David Dobie believed the cost of setting up the field in 1836 would be £3,000. He had expected to raise £500 by getting security on a legacy for that sum left to his mother, sisters and himself by an uncle. Dobie, unable to obtain this sum, the landowner, Mr. Wardlaw Ramsay agreed to lend him £200 if he could find £400, which, in the event, he borrowed from a Miss Mary Murray of Dysart, a friend of his mother's.⁽³⁾ Another important/

1. Higgins, The History of Bleaching pp.130 and 135

2. E. Gauldie, Scottish Bleachfields p.221.

3. S.R.O. CS 280/10/4. Sequestration of David Dobie, Haugh Bleachfield 1841.

important field was Balgonie Bleachfield set up by William Russell and Michael Barker, Kirkcaldy linen manufacturers under the firm of William Russell and Co. in 1826. In this case, the cost of the machinery, all of which was new, amounted to £1,911.⁽¹⁾ The buildings and fixtures of the Rothes Bleachfield were valued, in 1827, at £2,500.⁽²⁾

As bleachers worked mostly on commission, both for spinners and weavers, they had little capital tied up in the goods in process. There was, therefore a tendency for bleachers both to become involved in the trade, as yarn merchants and as providers of short term capital, using goods at the bleachfields over which they had a lien as a security. Thus, when James Hutchison of E. Wemyss, failed in 1839, owing £7,834.10. 2d, (£1,897.12. 7d was to three bleachers and dyers.)⁽³⁾ When John Annan spinner at Lydox, failed, he was found to have drawn heavily on the value of his goods at Rothesfield.⁽⁴⁾ An account of that firm clearly illustrates some of the salient features of the Fife linen trade. In 1800 Neil Ballingall, tenant of Auchmuty farm (Barkinch) and factor to the Balfours of Balbirnie gave a sub tack to the firm of William and Robert Russell, manufacturers, Kirkcaldy, of part of the lands of Auchmuty. The firm included John Anderson, manufacturer, Cabbagehall (Leslie) and Walter Fergus/

1. S.R.O. B.O.T. NG 1/60/67 - Expenses of William Russell and Co.
2. River Leven Trustees, Sederunt book No. 1. 27/2/1827.
3. S.R.O. CS 280/2/2. Sequestration of James Hutchison. 1839.
4. S.R.O. CS 279/100. Sequestration of John Annan, Lydox. 1854.

Fergus. In 1809, Fergus sold his share to the others and in 1814 Anderson sold to the Russells; but in 1816 Anderson bought out the Russells (they built Balgonie in 1820) for £3,795. In 1846 Anderson's heirs were bought out for £4,975 by Robert Tullis, paper maker at Auchmuty paper mill "with the acquisition of the Bleachfield Robert Tullis and Co. became also bleachers, dyers and yarn merchants." (1)

At the time the 6" ordnance survey maps were published in the middle-fifties there were some fourteen bleachfields in the County, half of which were on the River Leven. The largest were Loohty with approximately 70 employees and Prinlaws with 72; there were about 40 workers at the Balgonie and Rothesfields. (2) These fields were on a much smaller scale than the large fields in Perth and Angus, Huntingtower, for example, had 164 employees and Panmure field, 180. Again, this was smaller than the great Irish Works such as that of J.N. Richardson, sons and Ouden with 465 employees. (3) At the time of the N.S.A. male wages were mostly 10/-, 12/- per week and females 3/6d to 7/6d. (4) the rates being standard throughout the County. In 1856, in reply to a letter from John Fergus and Co, David Landale wrote that, at Loohty, young women were paid 2/6d per week, a few at reeling and pressing were paid 6/6d but the highest ordinary women's! /

1. C.D.M. ~~Kelley~~ Tullis Russell & Co. pp.71-73.

2. B.P.P. 1854-5 XVIII Report of the Commissioners on the Extension of the Factory Acts to Bleaching Works pp.129-130.

3. Ibid p.114.

4. N.S.A. Fife pp 118 and 676.

women's wages were 5/6d per week. (1)

Turning to the conditions of work; by the middle of the century, 10 hours per day were worked in Fife (from 6 a.m. to 6 p.m. with two hours for meals) though this could be extended, if, for instance, sudden rain and wind called for goods to be brought in from the field. (2) In many bleachfields extremely long hours were worked, often in hot conditions, but the case of the Fife trade was cited, to counteract the call for the extension of the Factory Acts to bleachfields, thus one of the witnesses before the Select Committee on Bleaching and Dyeing works was asked, "Are you aware that the females employed in these bleaching works in Fife are notoriously and proverbially the most healthy women in the country?" (3) Only at Lochtyfield was there a hot room with a temperature of up to 90° fahrenheit but women were only in it for up to ten minutes, a far cry from the Lancashire witness who had "been as long as 16 hours in a room, the temperature of which (was) described as being considerably above 150°." (4) Further, as the plant in Fife was all for yarn bleaching, there was no need to keep workers for long hours of intermittent work in calendering departments, as they waited for cloth to be pressed. In comparison with the rest of Britain, Fife/

1. Fergus papers David Landale and Co, Kirkcaldy to John Fergus 14/11/1856.
2. B.P.P. 1854-5 XVIII op.cit. p.129.
3. B.P.P. 1857 Session 2 Vol XI p.180. Report on the S.C. on Bleaching and Dyeing Works.
4. Ibid p.68.

Fife may be proud of the 1854 Commissioners' conclusion on the general conditions in bleachworks in the East of Scotland, "The occupation is a very healthy one, much of it consisting of outdoor work, in spreading or gathering up the cloth or yarn upon the grass, or shaking the yarn stretched on poles, or in putting the material through the various washing, boiling and steeping process, in well covered and airy buildings."⁽¹⁾

II.

Taking an overall view of the Fife linen trade from 1815 to the middle of the century, the period was one of general stagnation within the industry as a whole, punctuated by periods of particular depression and relieved by years of intermittent growth. The period is that of the losing battle of the flax trade to compete with cotton, this and is reflected in the relative price of the raw materials, the changing use of flax mills in Fife and the extent of business failure in the County during those years when Fife's marginal firms failed to cover their costs of production.

The chief bogey in the way of the linen trade was the rapid development of the cotton industry in response to grower's satisfaction of spinners' ever-increasing demands for raw cotton. This was reflected in a changing role for cotton goods. Products which had been/

1. B .P.P. 1854-5 XVIII op.cit. p.32. As the Commissioners' job was to expose the conditions in bleachfields, little evidence was gathered in Fife, as the worst conditions prevailed in West Scotland and the North of England, on which the Commissioners concentrated most.

been a luxury in the seventeen-eighties were "cheap goods" by the eighteen-thirties and, therefore, low priced.⁽¹⁾ Cotton's advantages were assisted by two features: Easier to handle than flax, cotton was earlier adapted to the powerloom than Linen, thus increasing the advantage of plain cotton goods in the twenties; further, cotton came from the United States, a country hungry for finished goods, therefore cotton suppliers were keen to take cotton cloth both as a contra account and as a return cargo, leading to a growth in exports from the Mersey and Glasgow.⁽²⁾ By comparison, Fife merchants had difficulty in finding suitable return cargoes for the Baltic trade and, such was the unlikelihood of cloth being sent there, that no bounties were payable on cloth sent to the Baltic countries. Such, in fact, was the competition from the cotton industry that, even Leeds, the home of John Marshall and Co. found it difficult to pick up after the depression of 1825.⁽³⁾ The immediate effect on Fife of the competition from cotton, was a change from the use of linen shirting, which had been a traditional Kirkcaldy product, to the use of power-woven cotton shirting⁽⁴⁾ and the replacement of Fife's cotton and linen checks by cottons in overseas markets.⁽⁵⁾ Fife checks which had already been 33% cotton in 1798 could/

1. D. Bythel, *The Handloom Weavers* p.109.
2. M.M. Edwards. *The Growth of the British Cotton Trade 1780-1815* p.176.
Between 1788 and 1815 total imports of cotton from the U.S. rose from 0.2 million lbs to 54.4 million.
Ibid Appendix C. Table C/3 p.251.
3. Rimmer, *Marshall's of Leeds* p.163.
4. B.P.P. 1834 X S.C. on Handloom Weavers' Petitions p.79.
5. N.S.A. Fife pp.119, 157, 753.

could no longer compete with Manchester goods.⁽¹⁾

The linen trade could not compete with the falling price of cotton, encouraged not only by the falling price of raw cotton but by increases in productivity, coupled, at least in some witnesses' eyes, with increased foreign competition leading to a fall in the price of cotton goods.⁽²⁾

Thus the price of cotton, which had fallen by more than four times between 1790 and 1815⁽³⁾ was halved again between 1815 and 1830,⁽⁴⁾ falling 40% in the year 1819 alone.⁽⁵⁾ Only by improved

machinery were the Linen industry's leaders, John Marshall and Co., able to reduce the price of their yarn by 40% over the years 1815 to 1833,⁽⁶⁾ and, similarly, elsewhere could the yarn fall by another 40% between 1834 and 1841.⁽⁷⁾

Over the period 1800 to 1850 the price of St. Petersburg 12-head flax rose from £68 to 70 per ton to a peak of £148 in 1809 falling to £37.10/- to £38.10/- in 1850, only to rise again to £50 to £51 (see graphs) by 1859.⁽⁸⁾

The brunt of the competition fell naturally on the highly competitive spinning industry making spinning unprofitable in several years, and on the weakest body, the weavers. As the *Free Herald* commented, when yarn prices rose/

1. S.R.O. J.C. 26/297 1798. Memorial for John McIntosh
2. B.P.P. 1837 Vol VI Report from the S.C. on Manufactures Commerce and Shipping pp.43-44. evidence of Kirkman Findlay.
3. M.M. Edwards, op. cit. appendix D, table D/1 p.254.
4. D. Bythel, op.cit. p.110.
5. Rimmer op. cit. p.134
6. B.P.P. 1837 VI op. cit. p.163
7. B.P.P. 1841 VII 2nd Report S.C. on exportation of machinery p.294.
8. Warden, op. cit. pp.639-659 Dundee prices current from 20th to 30th October yearly.

Table 7

Price of Riga P.T.R. flax at price current 20th to 30th October:

Ref. A.J. Warden, pp 639-651

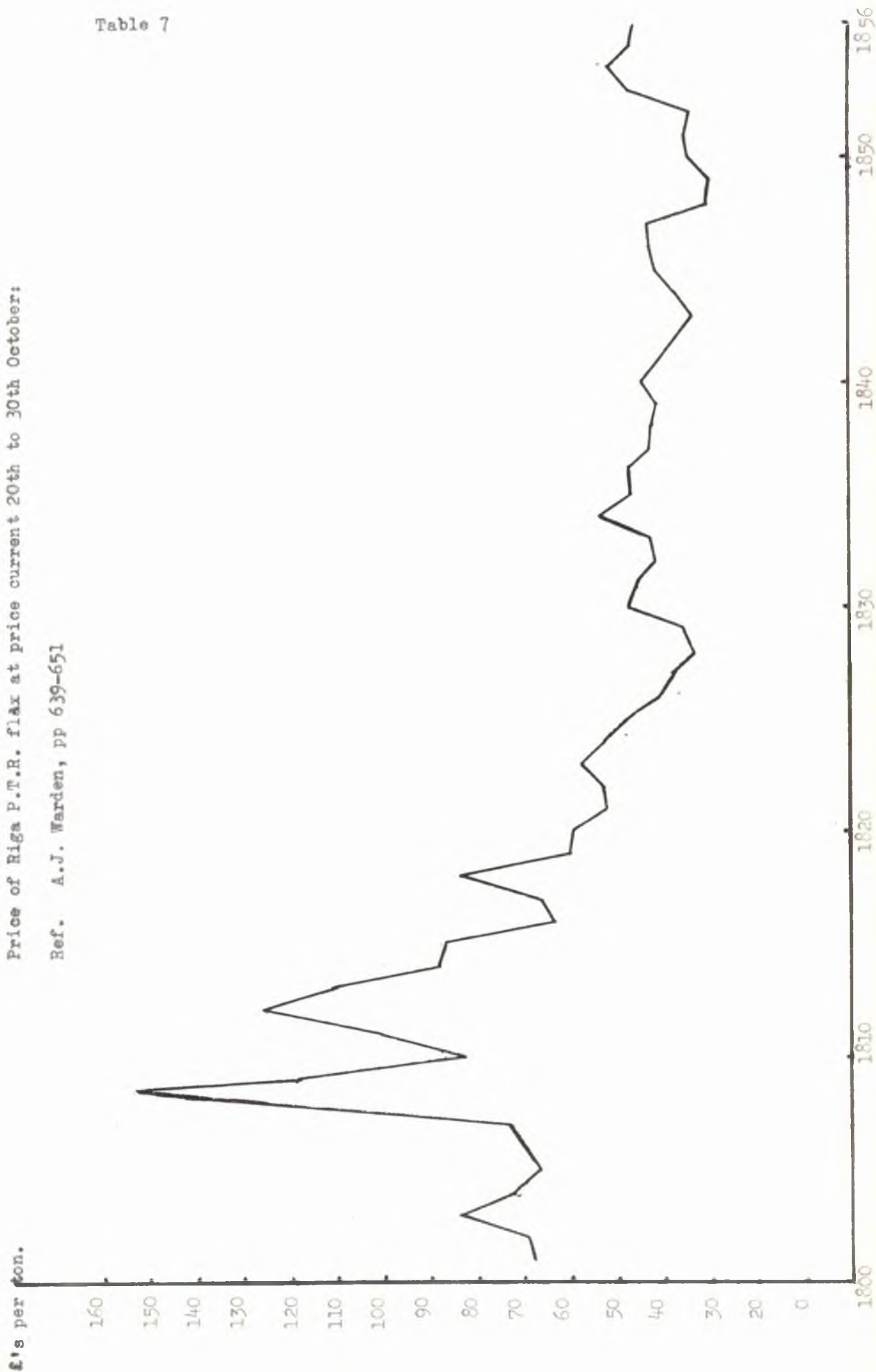
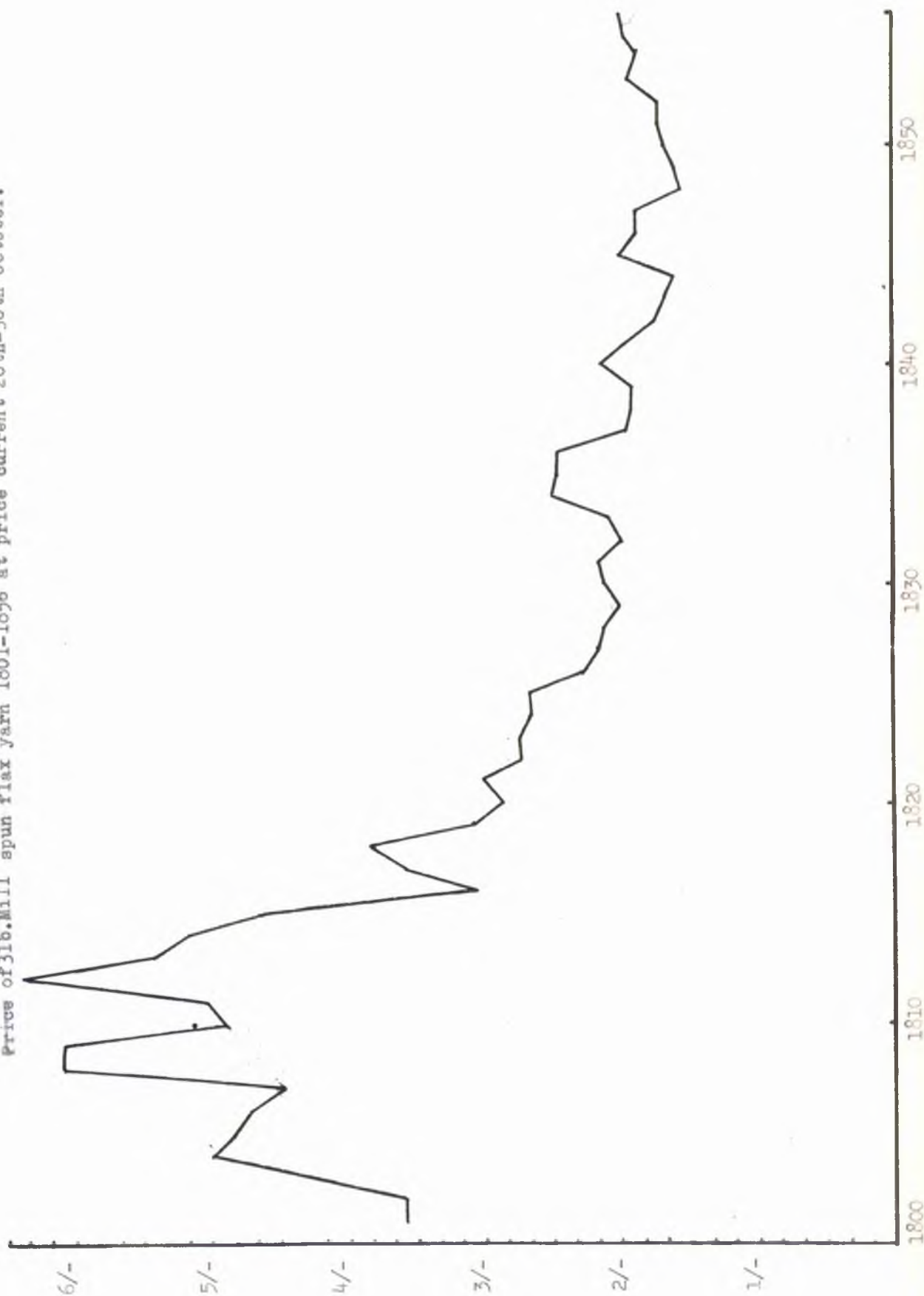


Table 8

Ref: A.J. Warden pp.639-651
 Price of 31b. Mill spun flax yarn 1801-1856 at price current 20th-30th October.



rose in response to higher flax prices, "weavers' wages had to fall" (1)

Apart from the competition from the ever-increasing cotton industry, the linen trade of Fife had to meet competition from the linen trade itself. In the 1830s, Ireland came to dominate the wet spinning trade and in the forties and fifties greatly increased the number of spinning firms. From 1848 to 1853 the number of firms grew from 69 to 88 and the number of spindles from 326,000 to 580,634 which compares with just 44,434 spindles in Fife in 1857. (2) Further, not only did Fife's product range alter from the competition with cotton; dowlas replacing checks in the Kirkcaldy area, and mixed cotton and linen and cotton and worsted goods coming in in Dunfermline, along with lighter weight counterpanes, to compete with Manchester and Marseille; (3) but the yarn spinners, who had made large sales abroad, found their markets closed by tariffs and competition. In 1835 some 400 tons of yarn were exported from Leven, about 700 tons of yarn went from Kirkcaldy to France each year, and Baxter and Stuart at Balgonie were sending their finer yarn to France. (4) With the French prohibitive tariff of 1841, sales to France were greatly cut back and spinners had to seek new markets in Germany and Spain. (5)

Whilst linen was losing out to cotton over the whole period to/

1. F.H. 19/6/1848
2. Belfast Linen Trade Circular 19/3/1852, 6/1/1854.
3. Reports from Commissioners, Corporations Scotland 1835 p.255.
4. N.S.A. Fife pp. 273; 755; 675.
5. Rimmer, op. cit. p.210

to 1860, particular years of general depression in the country hit the marginal Fife Linen Trade very hard. Fife took a long time to recover from the post-Napoleonic depression. In 1820, David Blair, the Board of Trustees' General Surveyor, reported on the depressed state of the Linen trade throughout the country.⁽¹⁾ In 1821 he reported full employment in Forfar but continued depression in Fife and Perth.⁽²⁾ It was only in 1823 that he could report an upturn in the fortunes of Fife.⁽³⁾ Following a period of expansion in 1824 and 1825, the trade fell back again in 1826, thus particular firms such as Robert Stocks, saw the failure of his main yarn supplier, Alexander Robertson at Haughmill and one of his main customers George Thwaites in Bristol. The years 1842 and 1847 were both very bad years in Fife, especially for the handloom weavers, short-time at Prinlaws, the barometer of the trade, reflecting the general weakness in the latter years.⁽⁴⁾ There was much unemployment and destitution leading to rioting in Dunfermline and many manufacturers also failed. The turning point, however for the spinning trade was the depression from 1837 to 1840, brought about largely by overspeculation in Fife by Dundee firms with little capital, such as Guthrie and Baxter who were closely involved with Boswall and Co. at Prinlaws/

1. S.R.O. B.O.T. NG 1/60/54. Report of the Surveyor General for 1820.
2. S.R.O. B.O.T. NG 1/1/34 18/12/1821.
3. S.R.O. B.O.T. NG 1/1/34 4/12/1823.
4. F.H. 20/5/1847.

Prinlaws and Robert Kirk at Leslie, the total debts of the company being £42,260.⁽¹⁾ In November 1837, as the discount rate rose to 5%, the Fife Herald noted the impending crisis, "It is now the prevailing opinion that we are again rapidly approaching a period of economical distress."⁽²⁾ A week later the paper spoke of several serious failures in the Dundee linen trade caused by reckless and speculative trading with insufficient capital, "Fife operations are like to suffer from the failure of Dundee firms who extended their operations into Fife."⁽³⁾ Throughout 1837 and 1838 Fife firms failed and the trade languished, the value of James Hutchison's goods and yarns on hand for example falling £500 within the year 1837.⁽⁴⁾ The Herald reported much linen, on commission, lying unsold in the U.S. and noted, "The conditions of the operative manufacturing population begins to be alarming."⁽⁵⁾ Symptomatic of the distress was the decision by John Fergus to stand down from the representation of the Kirkealdy burghs and devote his whole time to business.⁽⁶⁾ The depression continued, mills coming on to the market and failing to find purchasers/

1. S.R.O. CS 46/No. 3 June 1845. Sequestration of Gurthrie and Baxter, Dundee 1836.
2. F.H. 17/11/1836.
3. Ibid 24/11/1836. The Herald of 15/12/1836 records the drawing up of a Trust Deed by Boswall and Co, comprising Alexander Boswall and Alexander Guthrie. Shortly before their failure the firm had purchased Robert Kirks mills at Leslie. Boswall's estates were sequestrated by Cessie B in April 1837.
4. S.R.O. CS 280/2/2. James Hutchisons' Sequestration 1839.
5. Fife Herald 15/6/1837.
6. Ibid 29/6/1837.

purchasers. In 1840 the trustee on Robert Kirk's estate, upon the mills not being sold, concluded, "From the unprecedented state of the yarn trade and the number of mills that have been in the market, it is presumed this will not appear surprising to the creditors."⁽¹⁾

Two important questions must be asked, why did particular Fife businesses fail and what became of both the businessmen and their properties? Symptomatic of the stagnation of the linen trade was the changing use of Fife's spinning mills. In the earlier period we saw mills such as lint mills, waulk mills and flour mills being converted to flax spinning; now spinning mills were converted to other uses. Some small mills changed to wool production, usually as spinning and weaving concerns. Robert Kay and Son, for instance, purchased Balbirnie Wool Mills in 1843, from the creditors of John Drysdale and Son; the mill had once been a lint mill,⁽²⁾ and Rothes Mills, developed by Robert Kirk were taken over by David Dobie, wool spinner, in 1847. Wool production, however, never became significant in the county, manufacturers depending on Glasgow and North English merchants for their raw material and sending their output to Glasgow agents. There was also some change to jute and hemp, notably in connection with the rising Kirkcaldy floor-cloth trade. From 1832 James Aytoun began to spin jute at Abbotshall, his main customer being Michael Nairn.⁽³⁾ By the

1. S.R.O. CS 318/17/177. Sequestration of Robert Kirk December 1835.
2. S.R.O. CS 318/5/164. Sequestration of Robert Kay & Son 1858.
3. Muir, op.cit. p.8. Warden op.cit. p 71.

the 1850s Nairns were buying significant quantities of Jute from the Kirkland Works.⁽¹⁾ Some jute is recorded among Charles Arthurs' yarn at Kinghorn in 1837; George Wilson was producing jute at Haughmill in the ^{fifties} 50s and it was later produced at Russell Mill, Cupar. There was, however, no general change to jute spinning.⁽²⁾ At Leslie, Cant's spinning mill, started in 1813 was a paper mill by the end of the forties and both this and Haggart's mill were later incorporated into a paper mill, owned by the Anderson family, who had previously been the principal handloom employers in Newburgh. Other mills such as Gateside and Hospital Mills on the Eden were converted to Dobbie mills⁽³⁾ and some mills were converted for corngrinding. Forthar Mills (Scott and Taylor, till 1839) lay unused till being changed to corn and barley grinding whilst at Cupar, the 4-storey New Mill spinning mill was turned into a flour mill.⁽⁴⁾ Many other mills merely changed hands during the period, sometimes after lying idle for a number of years or were repossessed by their previous owners after composing with their creditors.

Much/

1. Ibid p.41.
2. S.R.O. CS 46/73/March 1838. Charles Arthur's Sequestration; CS 318/11/34. George Wilson's sequestration 1868. There was also some change to hamp spinning for rope and fishing gear, notably at the Hawkslaw Works, Leven and some use of cotton by N. & N. Lockhart in the manufacture of fishing nets at Benochy Works, Kirkcaldy. In general the Fife mills were not producing yarn for which Jute was a ready substitute.
3. A. Jespersen, Water Mills on the River Eden, Vol II p.58 and Vol III p.119.
4. F.H. 30/10/1856.

Much of the material used in the following discussion is taken from the records of firms whose estates were officially sequestrated; the sederunt books of particular firms, illustrating the liquidation of their assets by the trustee appointed by the creditors to fulfill this function. Before suggesting some of the individual reasons for business failure it is here necessary to consider the use which can be made of sederunt books in the study of a largely extinct industry.

The Use of Sederunt Books in Sequestration in the study
of the Linen Industry.

The rapid decline of the Fife Linen industry, after 1918, the closure of a number of firms and the amalgamation of others, coupled with the destruction of old records in two world wars and a lack of interest in such records, resulted in an almost-complete loss of the business documents of the trade. The only record of the majority of Fife firms in the Nineteenth century is the Sederunt Book in their sequestration. Are the firms which failed typical? In the long term, hardly a Fife firm has survived under the same ownership since its beginning. In the short term, the failures form a cross section of the industry and, at the end of the century, include some of the more important businesses, often businesses which had appeared successful over a long number of years. Further, they form a balance against which to judge the firms of which the records have survived. There are several reasons for studying such records. In the first place, writers of local history or gazetteers and Inspectors of Factories have concentrated on the large show-piece mills and factories. The owners of these works were often well known in other fields such as National Politics (John Fergus M.P.) or local government (P.D.Swan, Erskine Beveridge, the Lockharts, the Stocks family and others) and records of their businesses and life style have been recorded. Important men were also more likely to retain their correspondence and others to keep the letters/

letters they received from them, (e.g. the connection between the Swan family and Thomas Carlyle). But, in reality, the majority of Pife businesses were small concerns belonging to unpretentious men who kept the minimum of records, and the failure of many prevented them from founding settled concerns and homes, where records could be amassed. Further, surviving business records are often incomplete and uninformative. Secrecy was a watchword in the Nineteenth century and firms were unwilling to write down more than they had to about themselves; accounting practices also differed and definitions of entries is now unclear. Finally, the firms that failed were those at the margin and in the competitive ambience of the Nineteenth century, it was at the margin that businesses succeeded or failed. These too, were, often the firms criticised by the Factory Inspectors.

We can, therefore, use the Sederunt Books in the sequestration of marginal firms as a corrective to the study of those firms which have survived. (There are no detailed records in existence of successful firms, no longer in existence, which did not fail.) But there are many problems in the use of this material.

The bankruptcy records are not complete. With a small area such as Pife, one can not make important quantitative deductions, especially as the number of failures in any one year is no measure of the extent of the failures, and firms could fail without their estates being sequestrated. They could compose with their creditors amicably/

amicably before proceedings were taken or make a settlement under a trust deed, or in earlier years they could suffer an action for cessio bonorum (where the bankrupt's future assets as well as his present can be claimed by the creditors), in none of which cases would his name appear in the lists of sequestrated estates. Further, far from all the records have survived. Bankruptcy records are handled by the Court of Session but, before about 1860, few of the records of the court were catalogued and, as most sederunt books are bulky, hard backed volumes, they were shelved separately, from their processes; some were never brought in, other were mislaid or borrowed and not returned and others had no title to join them to their processes, when cataloguing began. How then can sederunt books be found?

Before 1839 bankrupts are covered by the Statutes 33 Geo. III C.74, and 54 Geo. III C 137 and may be discovered in the indexes of extracted and unextracted processes at the Scottish Record Office. As the indexes seldom give an indication of the occupation or location of bankrupts, these must firstly be found in the official publication, the Edinburgh Gazette or, more easily, in a regular newspaper publishing a list of sequestrations. The individual case can then be found by studying the card index of unextracted processes, and, if not found there, may be found by going through the registers of extracted processes. From 1839 to 1856 under the Act of 1839 (2 + 3 Vict. C.41). Bankruptcy was/

was dealt with by the Bill Chamber. In the early forties the Sheriff Courts began to keep registers of bankrupts and cases can be followed, from there to the Bill Chamber records, through that Court's transmission books. Unfortunately, only the sederunt books of concluded cases survive; in many cases, only the petition of the bankrupt and sometimes a valuation of his estate and list of creditors remain. The modern Law dates from 1856, the Bankruptcy (Scotland) Act, 19 & 20 Vict. C. 79), when bankrupts were brought under the Accountant of Court and cases can be easily followed through from the Sheriff Court records to the Accountant's records via his transmission books. Problems only arise where cases were not brought before a local court but were taken straight to the Lord Ordinary. Where a bankrupt can not be found under earlier legislation this may mean the case has gone on a long time and has been brought under subsequent legislation.

The main difficulty in using Sederunt books is that they are legal documents, describing a process aimed at discovering, as economically as possible, the bankrupt's net assets and distributing them fairly between the proven creditors. They are not interested, as such, in how the bankrupt made and lost his money nor are they concerned about his future. The documents do not fully explain an individual's failure where this was obvious to the trustee, such as alcoholism, or where an individual was brought down by complicated involvements with third parties.

parties. However, they do contain an immense amount of information about individuals and their businesses. Detailed inventories of the bankrupt's house and household furniture, livestock, insurance policies, stocks and shares and level of personal expenditure give an indication of his life style. (As bankrupts did not expect to fail and often did not know they were insolvent there are few indications of their attempting to sell off their belongings; besides, they or their friends or families usually purchased them back at a valuation). In many cases there is a resumé of the bankrupt's career in an attempt to find the sources, nature and extent of his capital. There is also much information on fixed and floating capital, trade credit and accommodation, whether from individuals or banks. The nature of the ownership of plant and machinery, the extent of mortgages over it and whether it is owned outright, feued or leased can be found from the articles of roup and also from the title deeds, which, in the case of leased property, before 1868, were not recorded in the Registers of Sasines. Inventories can also reveal the cost of plant and machinery, where it was made, its age and layout in the particular location. Finally, there is information on the cost and source of raw materials, shipping and other transport arrangements, insurance and freight, inventories of the type and value of goods made and the markets and marketing arrangements for their disposal.

Where/

Where bankrupts compose with their creditors and fail again a continuing picture can be built up and the problems of starting again and the attitudes and actions of friends and family revealed. In the other type of case, where different firms fail in the same location, the problems of working in a particular area can be seen. Lastly, the sequestration is not concerned just with one aspect of the bankrupt's life. Nineteenth-century entrepreneurs often spread their capital about and may have failed for reasons quite outwith their major activity in life. The way in which bankers and lawyers became trustees on bankrupt's estates and the extent to which they were aware of the opportunities available and able to purchase properties at favourable prices in depressions and channelⁿ resources into enterprises, further reveals the close interlocking relationships in nineteenth-century life and balances the picture by showing the width of the creditors' as well as the debtors' interests. It will, then, be shown that sederunt books in sequestration reveal a great deal of accurate information, particularly about the firms on the margin, the first to go under in a depression, and that, as these are just the firms, which are least likely to have left records of their owners or their activities, they provide a useful corrective to the few great enterprises, whose activities are better known but which were not the typical unit of production.

The industry's most severe official failure was that of Staig and Stuart, Balgonie Mills in 1861. The debts were £104,000 and the dividend paid was 6d on the company and 1d on each of the partners.⁽¹⁾ There were several other cases where most of the creditors' money was lost. James Archibald of Kirkcaldy paid 1/6d in 1836 as did Alexander Glenday, Cupar in 1840, whilst John Ednie at Durie Mill, Leven paid a dividend of only 6d.⁽²⁾ Of course, to some extent, failure can be blamed on exogenous factors, as in the later thirties, when many small firms found they could not afford to introduce the Factory Acts. Nearly all the firms complained of by the inspectors, such as Scott & Taylor, Shanks, W. Kirk and Glenday were bankrupts; thus the report on Glenday of March 1837 states, "The Act has been totally neglected which Mr. Glenday confesses, and says it is owing to his failure in business".⁽³⁾ Many firms were affected by the fluctuating price of flax and yarn, especially if they found themselves with stocks on hand in a falling market. Thus, at the beginning of the century David Melville of Cupar, complained in 1803 that he had "lost considerably by purchases of flax, yarns and cloth made at the time of the Russian embargo about three years ago."⁽⁴⁾ In 1836 Robert Stocks wrote to his traveller, telling him that his main supplier, Alexander Robertson had/

1. S.R.O. CS 318/7/311. Sequestration of Staig & Stuart, 1861.
2. S.R.O. CS 231 A/1/32. James Archibald's sequestration 1836;
CS 46/41/March 1840, Alexander Glenday 1837.
CS 318/15/104 John Ednie, 1860.
3. B.P.P. 1840 X. 5th Report, SC On Mills and Factories, Appendix VII p.655.
4. S.R.O. CS 96/707. Sequestration of D. Melville, Cupar (1803)

had failed because he had previously been selling yarn below cost and had been ruined by the falling flax price.⁽¹⁾ 9-head Petersburg flax, which had risen in price from 38/- to 43/- per cwt., between 1822 and 1824, fell back to 38/- in 1825 but then dived to 30/- in 1826. 31b. flax yarn which had been sold at 2/7^d to 2/9^d per spindle in 1825, was reduced to 2/2^d to 2/5^d in 1826. Similarly, Riga flax, which had risen to £61 per ton in April 1835, had decreased to £41 by June 1837 and 31b. flax yarn which sold for 2/4^d to 2/7^d per spindle in 1836 was only 1/10^d to 2/1^d in 1837.⁽²⁾ Other firms were brought down by the failure of the firms to whom their goods were consigned, all being caught up in years of general depression. Thus James Hutchison of E. Wemyss, who failed in 1839, blamed losses and bad trade over the previous three years. In 1837, he had lost £1,500 on a consignment of £14,000 to a London house and lost a further £470 on the failure of two other London firms to whom goods were consigned.⁽³⁾ Although bankrupts tended to blame their failure on the marginal nature of their trade, as did George Wilson, who said his losses "must have been on account of bad debts and being in a trade that did not pay."⁽⁴⁾ Nevertheless, there were usually endogenous factors at work.

Many

1. Robert Stocks and Co, Letter Book op.cit. 6/2/1826. Stocks to Ramage.
2. A. Warden op. cit pp. 645, 646. Although Warden quotes Dundee prices current, Fife yarn prices are in line with these as much Fife yarn was sold in the Dundee market and much flax bought through Dundee.
3. S.R.O. CS 280/2/2. Sequestration of James Hutchison, E. Wemyss 1839.
4. S.R.O. CS 46/98/March 1840. Sequestration of George Wilson.

Many small businesses were grossly inefficient and often unaware of their financial position. The state of their books, which their trustees reveal, may be an indication of their general competence and attitude to business. Larger businesses were not immune from criticism. George Wilson's trustee, for instance, said of Wilson's Ledgers, "As mill books they do not exhibit what they ought to have done... neither do the books contain all that they ought to have contained." Wilson said that he was not much acquainted with bookkeeping and it was only after his property was consigned to the Commercial Bank that he began to keep a proper set of books, on the manager's advice.⁽¹⁾ Scott and Taylor of Freuchie whose incompetence had been revealed by Mr. Beal of the Factory Inspectorate, when the owner was found drunk at his work, are shown to be inefficient in their business methods. "With regard to the books, the reporter has to remark generally that they appear to have been inaccurately kept, there being no cash book, and in some of the most important books no regular system adopted."⁽²⁾ In the case of James Archibald, Kirkcaldy it was stated, "the declarant never kept any regular system of books."⁽³⁾ Whilst David Dobie of the Haugh Bleachfield, "depones that he never balanced his books nor made up any/

1. Ibid.

2. S.R.O. CS 96/791. Sequestration of Scott and Taylor Freuchie (1839)

3. S.R.O. CS 231/A/1/32. Sequestration of James Archibald, Kirkcaldy (1836).

any balance sheets."⁽¹⁾ Such laxness contrasts unfavourably with the regular system of keeping records at Prinlaws Works and the inference may be drawn that there would have been less failures if businessmen had been more aware of their position and in a state to take avoiding action before it was too late.

Along with bad book-keeping went bad accounting procedures. It was common for firms to over value their plant and to fail to allow for the fall in the value of assets due to depression or to set a sum aside for depreciation. Thus, Charles Arthur and Sons of Kinghorn, had estimated the value of their mills at £4,500 but, "Due to the great depreciation which has taken place in that description of property," the interim factor valued the mills and machinery at just £2,000.⁽²⁾ When George Wilson failed again, in 1860, the recently-modernised Haugh Mills were valued at £18,245. The Mills were offered for sale at increasingly reduced upset prices, but when no takers were found at £8,000, the machinery was sold separately at £4,097 in 1862.⁽³⁾

Much of the instability in the industry was due to the overall lack of capital and the attitudes which this engendered. Of course, there were cases of pure speculation as with Guthrie and Baxter in the 1830s or in a case such as that of Ebenezer Rutherford, Kirkcaldy where creditors/

1. S.R.O. CS 280/10/14. Sequestration of David Dobie, Haugh Bleachfield (1841).
2. S.R.O. CS 280/10/4 Sequestration of Charles Arthur & Sons, Kinghorn 1842.
3. S.R.O. CS 318/11/34. Sequestration of George Wilson, Haugh Mill (1860).

creditors might be wary; thus, Robert Stocks wrote, "Ebenezer Rutherford.... some time ago took a share of a flax spinning mill, by which we fear he may have lost; and the circumstance alone of his interfering with a trade to which he is an entire stranger would prevent us going deep with him."⁽¹⁾ But in general, businessmen were eager to maintain their supply of raw materials and ensure markets for their products, thus Stocks wrote to George Thwaites of Bristol in 1826, accepting his composition of 15/- in the £. "I regret your misfortunes but as I am not aware from anything I have heard on this unpleasant occasions that you have forfeited the good opinion of your friends, I am ready to renew our dealings so soon as you require a further supply of our manufacture."⁽²⁾ As long as creditors believed there had been no fraudulent practices it was general for creditors to accept a composition. Alexander Boswall, for instance, was not discharged by his creditors, having been sequestrated by *Cessio honorum*.^{*} The result was that businesses could soldier on without capital from one sequestration to the next or from extrajudicial composition to official sequestration. When the next depression came the firm would be unlikely to have built up sufficient assets to tide it over. Thus Arthurs' trustees concluded in 1842, "In prosperous times they might have/

1. Robert Stocks & Co, Letter Book op.cit. R. Stocks to Broadhurst Marris and Co, 14/12/1819.

2. Ibid. R. Stocks, to George Thwaites, Bristol 10/4/1826.

* Surrender of assets to creditors in return for protection from imprisonment for debt. Future assets could also be claimed.

have surmounted the difficulties with which they were beset, they were not in a position to conduct a concern so extensive, in times like the present."⁽¹⁾

A classic example of failure is that of John Darling, a Dunfermline handloom factory, manufacturer. He began business in Dunfermline in a small way in 1839. Owing to a large loss he had to settle with his creditors for 2/6d in 1844. Obtaining bills for about £300 from friends he resumed business only to stop payment in 1847, composing again for 2/6d in the £, largely to the banks.

"I got accommodation to extend my business and it increased considerably till the year 1854 but in the end of that year from losses I was obliged to stop payment". He paid 8/- and began again but, such was the depreciation on his handlooms, and his losses on consignments that he had to weave on hire for another Dunfermline business. At his sequestration in February 1860, his heritable property was abandoned to the bondholders and his machinery to the secured creditors. His liabilities were £5,611.14.10d and the burdens of £3,008.14.4d were much greater than the value of his property.⁽²⁾

Although Darling may be an exception, the picture of friends and family rallying round the bankrupt is typical. Thus, John Ednie, who bought Durie Mill in 1842 failed in 1851 but survived till 1860, because Ninian Lockhart aided him by acting as security in his composition/

1. S.R.O. CS 280/10/4. op.cit.

2. S.R.O. CS 318/11/61. Sequestration of John Darling, Dunfermline, 1860.

composition of 1853.⁽¹⁾ James Annan of Pitscottie, whose estates were sequestrated in 1872, settled extrajudicially with his creditors in 1867, "for 6/6d in the pound which was paid by Messrs. Watson and Sons, Blebo Works, for the creditors."⁽²⁾ In other cases, the close kinship ties within the Fife trade lead to relations rallying round. When Alexander Troup of Strathmiglo failed, his furniture was bought back by George Wilson, Haugh Mill, his brother in law, Troup having to pay Wilson ten pounds a year.⁽³⁾

Where bankrupts were unable to get back their businesses, either on a hire basis or composition, they sometimes emigrated or looked for a job elsewhere in the country but often they set up as a commission agent to earn enough money to get back into the trade, or maintained their connection in a managerial capacity. In the early years of the century James Aytoun was a prominent example of a bankrupt who returned to the linen trade. ^{there were} Later men such as Andrew Selorig of Kirkealdy who failed in 1837, then became the manager of a warehouse in Glasgow before returning to Fife in 1840, setting up in Dysart as Andrew Selorig and Company to keep the creditors away as he was an undischarged bankrupt.⁽⁴⁾

The overall impression is one of instability, as an industry, without sufficient capital resources struggled to survive against/

1. S.R.O. CS 318/15/104. Sequestration of John Edine, Leven 1860.
2. S.R.O. CS 318/18/7. Sequestration of James Annan, Pitscottie Mills 1872.
3. S.R.O. CS 318/11/342. Sequestration of Alexander Troup, Strathmiglo 1856.
4. S.R.O. CS 280/18/11 Sequestration of Andrew Selorig 1841.

against the competition of the large and competitive cotton industry. In years of general depression, many Lile firms were unable to meet this competition, especially when years of depression were coupled with highly fluctuating raw material prices. Although the level of business in the county was determined by the state of the industry as a whole, particular firms survived or failed because of their individual position, and a study of the sederunt books of failed businesses indicates that individual inefficiency was a strong corroborating factor in many a firm's demise. It is, therefore, against a background of instability that the spinning mills and weaving shops of Lile must be examined.

III

The coming of power spinning mills had created totally new working conditions in Britain. Many of the early water-powered mills were set up in rural areas removed from the eye of municipal control, using the labour of young people, brought to the mills by the inducement of high wages. As industry expanded and competition grew, spinners found it harder to attract labour and, inevitably, accusations grew against the exploitation of young children by unscrupulous factory owners. The permissive, yet narrow-ranging legislation of the first decades of the century had not solved the problems of exploitation of factory workers and demand mounted for a proper inquiry into the conditions of life in the textile mills of Great Britain in the 1830s. Quoting the Glasgow Courier of 3/11/1831 and 10/11/1831 Tom Johnson wrote,

"In the flax mills of Wiltshire and Dorsetshire the conditions were terrible/

terrible - there infants, "as soon as they can run about" - were working sixteen hours a day, and says the Tory Courier, they are denied education, recreation, fresh air and sleep; their lungs are filled with metallic and vegetable dust "thus they grow up a miserable and squalid race, without morals and without comfort, and bring forth wretches like themselves, to tread without hope of amelioration, the same dreary path of social misery."⁽¹⁾

The purpose of this section is to describe life in the Fife factory as revealed by the Factory Inquiry Commission of 1833 and in the subsequent reports of the Factory Inspectors and to evaluate the information given.

The millowners of Fife were against legislation interfering between masters and men; they themselves had agreed to limit the hours of work to twelve per day or seventy two hours per week at a meeting in October 1831. In February 1832 a meeting was called of the Fife Spinners and Manufacturers against Sadler's Factory Bill. In March 1833, the Fife Spinners declared that the proposed legislation would lower workers' wages, ruin water-dependent mills and make the industry uncompetitive with foreigners. They further believed that twelve hours of work was not bad for children, it brings them, they said, "comfort, plenty and moral instruction."⁽²⁾ The Factory Inquiry Commissioners/

1. T. Johnson History of the Working Classes in Scotland p.305.
2. F.H. 27/10/1831.
9/2/1832
28/3/1833.

Commissioners sent out to report on the conditions in mills found rather differently.

We can not be certain of the conditions in all the mills as the Commissioners did not investigate them all, especially the smallest and most isolated; thus only 14 of the 24 mills in the Kirkcaldy area were visited.⁽¹⁾

However, the Commissioners clearly distinguished between the County's numerous small mills and the large integrated works at Kirkland and Prinlaws. The opinion of small mills was, "such factories are generally managed by the owner, who frequently is an ignorant and illiterate person."⁽²⁾

This contrasted with mills like Prinlaws, "where the whole population connected with the factory enjoyed excellent accommodation in the dwelling houses erected for them, and had every comfort compatible with their situation most liberally provided for them."⁽³⁾

But a straight distinction can not be drawn. ~~Though~~ The small mills, which gathered families round the works and usually employed more children, often for long hours and felt that their works were too small to be brought under

~~Although these mills~~ the Factory Acts, often had few facilities, there may have been closer contact between employer and employed in such mills.⁽⁴⁾ The dichotomy can be seen in this description of Templeton's Mill, Kirkcaldy, "This is a very/

1. B.P.P. 1833 XX. First Report of H.M. Commissioners as to the Employment of Children in Factories p.110.
2. B.P.P. 1837 XXXI F.I's Report December 1836 p.64.
3. B.P.P. 1847 XV F.I's Report p.479.
4. B.P.P. 1837 XXI p.64; 1834 XX, Factory Inquiry Commissioner's Supplementary report part II p.73. At Scott and Taylor's Mill at Frauchie, facilities were virtually non-existent. "In both mills they have an opportunity of washing themselves in a small stream close by, if they choose."

very small mill and ill ventilated but all the workers are much attached to Mr. T. and seem contented."⁽¹⁾ Again at Gateside Mill on the Eden, where the workers suffered from a harsh overseer (a further problem in a small mill) and no education nor medical attention was provided for the 40 workers and where wages were trifling: "when he boards them he charges from 2/10d to 3/- per week; that the highest wages he gives to the best spinners and reelers is eight guineas a year, bed board and washing, that the bothy or sleeping place is twenty one feet by twenty and contains seven beds which contain three in a bed."⁽²⁾ Nevertheless, the Commissioners were impressed that Mr. Smith gave the children religious instruction on Sunday evenings and provided free church seats. Further, when Sir David Barry, the Medical Commissioner visited the works he found, "there is a good eating room, saw the young people at breakfast, an excellent porridge and milk which I tasted - the supply seemed abundant."⁽³⁾ The general impression must be that in rural areas conditions of work could be worse but at least employers were likely to be close to their work people. A later Factory Inspector, Kincaid, concluded in 1850, "I could not, however, avoid remarking, that except in small country places, all my enquiries tended to show that few, if any, of the extensive millowners had any knowledge of the moral or social conditions/

1. B.P.P. 1833 XX op.cit. p.244.

2. *ibid* p.120.

3. B.P.P. XXI. Second Report, Factory Inquiry Commissioners p.32. Of course mills sometimes made a special effort knowing an inspection was imminent (B.P.P. 1837 XXXI p.242).

conditions of the persons in their employment."⁽¹⁾

Inspite of spinners' voluntary agreement to limit hours, the Commissioners found very long hours worked, often from 5.30 in the morning till 8 at night on weekdays and 8 till 5.30 or 6 on Saturdays without one hour off for meals. Most mills also made up time till as late as 10 p.m. if the mills were stopped by lack of water or engine failure. Overtime was also worked if the mills were to be closed for a holiday such as the Cupar market.⁽²⁾ Even millowners, such as Kinnell of Dunfermline, felt the hours were too long⁽³⁾ and an overseer at Kirk's mill, Kirkcaldy said the hours were, "far ower long sure enough..... He could mony a time sleep himself even walking about on his own feet like to coup oer"⁽⁴⁾ Such was the length of hours worked that children often fell asleep at their work, thus precluding any opportunity for play, making education impossible and depriving girls of the arts needed to turn them into housewives. "The girls have little time to learn needlework after coming to the mill."⁽⁵⁾ There⁴

1. B.P.P. 1850 XXIII F.I's Report p.296.

2. B.P.P. 1833 XX op.cit. p.109 Kirkland's Dunfermline, hours 13½ per day.

p.118 Prinlaws. hours 5.30 to 7 p.m. with 1½ hours for meals

p.120. Russell Mill. hours 5.30 to 8 p.m. 1 hour for meals.

It was not general for Fife Mills to work at night except on the River Eden in summer, an exception being the drought year of 1826. Thus Alex. Robertson (R. Leven Sederunt Book No.1) "He was 3 months short of water in 1826, during which time they worked night and day but did not do more than three-fourths of their ordinary work. That in ordinary years they were short of water for six weeks in the year when they worked during the night."

3. ibid p.107. The hours were regulated by these worked at Kirkland, the largest mill, which other spinners followed.

4. ibid. p.113.

5. ibid. p.109; N.S.A. Fife p.118.

There was also the temptation to clean machinery, while it was still going.⁽¹⁾ Yet workers did not want less hours if their pay would be reduced. Further, working in the mills was preferred to domestic service, because at least Sunday was free and workers could do what they wished in the evenings (supposing they could do anything but sleep). The work was also lighter; "Sair work, service", said Mary Mackay, aged 40, of the Kirkland works.⁽²⁾ Millwork was also less hard and better paid than weaving.⁽³⁾ Further, hours were long in any occupation, not least in that of Factory Inquiry Commissioner. "On the 9th inst. the Commissioners set out for Kirkcaldy at half past five o'clock a.m."⁽⁴⁾ For some children factory life may have been quite pleasant, thus two girls aged 13 and 16 said of their work in Dunfermline that, "Before they went to the mill they did nothing but play about, they like their work just as well as they did playing about."⁽⁵⁾ Nevertheless, the general effects of factory life were adverse to childrens' health.

A Dunfermline girl said that her small sisters were, "so sair done out that they are no able to take their supper."⁽⁶⁾ Others suffered from the effects of dust, and swelling of the legs and feet from/

1. Ibid p.241.
2. ibid pp. 244 and 247
3. ibid p.246.
4. B.P.P. 1833 XXI op.cit. p.31.
5. B.P.P. 1833 XX op.cit. p.240.
6. ibid p.241.

from long hours of standing was common. Such believed Dr. Douglas of Dunfermline could be the adverse effects of mill work that puberty in mill girls was apt to be delayed till their 20th year.⁽¹⁾

Nevertheless, millworkers were probably healthier than others, when cholera came to Kirkcaldy it did not affect the mill population⁽²⁾

and much depended on the living and general conditions of particular mills, thus Barry said of the model Kirkland Mill, "I saw as fine young women spinners at this mill as can be found in any class of working people."⁽³⁾

The Commissioners found several examples of workers who had been in the mills without ill effect since their opening in the 1790s. Isobel Meldrum, for instance, aged 63, who had been a spinner and preparer at Kinghorn for 41 years said, "Messrs Arthur are kind good masters, not only to their workmen but to mony a poor thing in the vicinity."⁽⁴⁾

Another, Margaret Campbell, who had started at the age of 10 at Kirkland in 1790 said, "she never had a swelled leg, nor any complaint or illness, occasioned by the mill, though she had been overtired at the work."⁽⁵⁾

The workers' main problem was when they became ill, and again the large mills are contrasted with the others. At Prinlews and Kirkland there were sick fund societies and at Kinghorn, Swans paid accident expenses. At Kinghorn, Mr. Storrer attended the millworkers'

1. B.P.P. 1833 XXI op.cit. p.27.
2. B.P.P. 1844 XXII, Poor Law Enquiry Commission. Minutes of Evidence p.339.
3. B.P.P. 1833 XXI op.cit. p.29; B.P.P. 1833 XX p.110 "The female workers at Kirkland Works are the healthiest as well as the handsomest in appearance we have seen at any of the works."
4. B.P.P. 1833 XX p.108.
5. ibid p.117; The F.H. of 13/3/1845 recorded the death of a man with nearly 50 years service at Abbotshall Mills.

millworkers, the men paying 4/- per year, women 3/- and children 1/-. The more paternalist George Moon had no benefit society at Russell Mill but himself provided free medicine.⁽¹⁾ Where no funds were provided hardship prevailed. Dunfermline, an insanitary town with quite inadequate water supplies had no hospital and in 1845 Kirkcaldy was one of the sixteen Scottish towns where no payment was made to doctors for the treatment of the poor.⁽²⁾

There can be no argument about the conditions prevailing in the wet spinning mills of Fife, where workers were continually soaked by hot spray from the spindles. James Stuart of Dunearn, one of the Commissioners, said, "I witnessed a more painful sight again and again, in beholding the miserable, unhealthy looking beings in the wet spinning and wet dressing departments, though comparatively few in number than in all other parts of the many factories I have now visited."⁽³⁾ In some mills the workers were provided with coarse linen protective garments called "brats"; when these became wet through they were worse than useless; in the better mills the machinery was fitted with protective boards to keep the spray off. The worst conditions were in the small competitive mills of Dunfermline where the workers had to stand in the heat on wet, flagged floors and where there were no sanitary arrangements, as at Hall's and/

1. *ibid* pp. 109, 111, 120.

2. T. Ferguson. *The Dawn of Scottish Social Welfare* pp. 47 and 243.

3. B.P.P. 1833 XX *op.cit.* p.225.

and Kirkland's Mill, where half the workforce was off sick at the time of the Commissioner's visit.⁽¹⁾ Work in unprotected wet spinning mills exacerbated the problems found in the dry spinning mills. As Isabella Simpson, a Kirkcaldy girl, said, "my feet will tell you, they are so swelled and red, what a sad place I am in."⁽²⁾ The greatest danger to health was from going out into the cold from the hot, wet conditions inside, the result being, "hands much chapped and sore, here called hacked, which it was in some cases painful to see, and considerable swelling to the feet and legs."⁽³⁾ Sir David Barry's conclusion was, "Wet Spinning is most certainly the least healthful branch of manufactory."⁽⁴⁾

Within any one mill conditions depended much on the quality of management, there being little escape from harsh management in a small mill. Works, such as Prinlaws, were governed by a strict code of discipline. As in other mills in Fife, discipline was enforced not by corporal punishment but by fines for lateness and absence, and by extra work. The following rules make the position clear:

- I. 12½ working hours, full time. ½ hour for breakfast, 1 hour for Dinner.
- II. The first bell in the morning will be rung at half past five o'clock, the second at five minutes before six, the third at twenty/

1. B.P.P. 1833 XXI op.cit. p.25.
2. B.P.P. 1833 XX op.cit. p.113.
3. B.P.P. 1833 XXI op.cit p.25.
4. B.P.P. 1847 XV p.478. F.I's Report 1847, quoting Barry in 1833.

twenty past nine, and the last at five minutes before three in the afternoon by Prinlaws clock. The doors will be shut, and the mill set on, at six o'clock in the morning, half past nine in the forenoon, and three o'clock in the afternoon. After these hours, every minute shall be counted as two, against those who are behind, an account of which shall be kept and made up after working hours on Friday night.

When the mill is stopped by accident, or for necessary repairs, or on holidays, the time must be made up by working other hours, or be deducted from the wages.

Fine, five shillings for smoking tobacco within the premises, or conveying spirits into the mill.

The overseer of each flat shall be accountable for the order and cleanliness maintained, and the work done in his own department, and shall keep an account of every breach of regulations, to be given in weekly to the manager, under a penalty of two shillings and sixpence.

Each pane of glass broke shall be paid for by the person or persons who broke it. (1)

Though such mills as Prinlaws were probably efficiently run, some workers preferred the laxer discipline at some of the smaller mills. However, witnesses' evidence is suspect for though workers were /

1. Kirkealdy Technical College, Fergus Papers. Rates and Regulations, Prinlaws Mill.

were often quick to attack works they had worked in, there was little complaint at their present employers. Thus, there was a girl who had worked at Brucefield, Dunfermline, where, she said, "the overseers often beat her unmercifully, between the ages of seven and fourteen."⁽¹⁾ Again John More, overseer at Aytoun's mill from 1828 said that, "he has seen children strapped at Balgonie, but not severely."⁽²⁾

At large mill complexes such as Prinlaws the same paternalist discipline applied to the provision of housing for the workers. The rules were as follows -

- First:** The rent of each house shall be paid monthly on the first Saturday of the month, by the master or head of the family, or whoever he may appoint; and in case of failure, the amount due shall be kept off the wages of the members of the families employed in the mill.
- Second:** Each pane of glass broke shall be replaced immediately, and all wanton injuries done to the walls, doors, staircases etc. shall be repaired at the expense of the tenants.
- Third:** A fine of one shilling for each offence shall be imposed upon any person or family throwing water, ashes or dirt over the windows, or laying them down at the doors of the houses, or anywhere else but in the places appointed for the purpose.

Fourth/

1. B.P.P. 1833 XX op.cit. p.107.

2. *ibid* p.112.

Fourth: No householder will be allowed to harbour any lodger, or traveller, without express leave obtained from the manager.

Any person or family refusing to comply with these regulations, which are for the general good, or refusing to submit to the fines and penalties imposed by them for offences, will be liable at the will of the Manager to quit their houses and the works on a notice of ten days. (1)

It was generally acknowledged that the housing provided by John Fergus and Co. was of a model character. The 'Life Herald' commented, "The houses erected by Mr. Fergus for his work people may be regarded as model dwellings and stand in groups which have been built from time to time and embrace all improvements at the date of their erection." (2) At the Milton of Balgonie, the houses were said to be in general neat and substantial. (3) Elsewhere, bothy accommodation was provided at the rural mills such as Russell Mill, Catnashide or Blebo. At Russell Mill, the Factory Inquiry Commissioners found the bothies clean and comfortable, (4) at Blebo, the single women were housed in apartments with four to six in each, "a bed and bed clothes for every two and properly cleaned sheets are regularly furnished." (5) That these bothies, continued to be sparsely furnished can be seen from the inventory taken in 1877 of the cottages/

1. Kirkealdy Technical College. Fergus papers op.cit.
2. F.H. 21/8/1856.
3. M.S.A. Fife p.675.
4. B.P.P. 1833 XI op.cit. p.32.
5. B.P.P. 1833 XX Supplementary Report part II p.59.

cottages at Pitscottie Mill, Duraden, built in 1865. These contained 23 iron beds, £4.10s; 4 woollen bed covers 10/-; 6 sheets 12/-; 4 pillows 6/-; 2 bolsters 5/-; 4 wooden forms 6/-; 1 table 2/6d; 1 pail 1/-, an iron dish, two goblets and a boiler worth 7/6d.⁽¹⁾

The rent of accommodation varied with the type. At Balgonie, in 1838, the rent of a house with garden ground and pig-stys was 40/- to 50/- per annum.⁽²⁾ By mid century, rents were usually paid fortnightly.

At Haughmill, the workers' houses were rented from 6d to 1/6d per week and rent at the two bothies was 4½d per week.⁽³⁾ Undoubtedly, the

worst conditions were suffered by young girls who had to seek accommodation at lodging houses in the towns or with families in the country.⁽⁴⁾ The case of one young girl described by John Hutchinson in a letter to the Minister of Markinch in 1843 makes sad reading:

"About nine or ten months ago a woman of the name of Matilda Robertson left the Milton of Balgonie, where she was employed at the Milton Mill belonging to Mr. Stewart, and was lodging there with a Margaret Graham. This woman first went to Kirkland where she gave birth to a child, she then went to Cupar, and I believe is at present at Leslie, the child was left to the care of an acquaintance of hers after she left Cupar, it was brought to Kirkcaldy where it died about a fortnight ago and after being kept/

1. S.R.O. CS 318/25/561. Sequestration of H.S. Watson, Pitscottie Mill 1877.
2. N.S.A. Fife p.675.
3. S.R.O. CS 318/11/342. Sequestration of George Wilson 1860.
4. Kirkcaldy Public Library, Hutchinson Papers. John Hutchinson's Letter Book No. 1 8/5/1830.

kept for four days was buried at the expense of our Kirk Session, the person who kept it has not been remunerated by the unfortunate mother for all her outlay. We have been led to understand that the father of the child is the son of Margaret Graham with whom Matilda Robertson lodged when in the Milton of Balgonie. She had been from three to four years there. Will you therefore make the necessary enquiry and have the goodness to remit me the expense the Kirk Session here have paid out which was six shillings and sixpence and oblige."⁽¹⁾

The letter reveals in clear terms the misfortune faced by one young girl lodging in a mill community. The evidence of illegitimacy found in mill communities from the early registers of births and deaths from 1856, makes this case seem not untypical.

Another problem which the Factory Inquiry Commissioners found was the payment of wages in truck. . Marwick suggested that truck was especially common in coalmines and iron works, whilst some enlightened employers encouraged workers to set up coops.⁽²⁾ The evidence from Fife is scanty. There were certainly stores at some of the country mills, but not run by the millowners. In 1842 there was a break-in at the stores at Balgonie Mill when cloth, food and tobacco were stolen.⁽³⁾ In 1848 a shop was opened at 1, Yulefield Crescent, Duraden/

1. Ibid.

2. A. Marwick. *Economic Developments in Victorian Scotland*.

3. F.H. 3/11/ 1842.

Duraden and this continued throughout the century, the failure of J.C. Watson recording at "Long Row, 22 houses and a grocer's shop and house with a bakehouse behind."⁽¹⁾ In 1846 Joseph Senior, merchant in Prinlaws, failed. Amongst his wares were grey shirting, small amounts of various types of cloth, hats, gloves and handkerchiefs, as well as pirms, dried grocery goods (currants, peas etc.) pipes, combs, whistles and sweeties. As well as owing the Glasgow and Ship Bank £392.16.2d, he had a credit of £20 from John Fergus.⁽²⁾ In other cases workers were tied to their employers by loans. Amongst R.S. Smith's assets were "Petty Accounts due by weavers £3.19.1d."⁽³⁾ They could also owe large amounts to shopkeepers near the mill. Thus at the failure of Robert Reekie, a baker in Leslie, of his 117 debtors 53 were living at Prinlaws Mill, but in this case the creditors benefitted, Reekie explained, "My trade was all wholly on credit and I have made losses..... I kept no books, not being a scholar."⁽⁴⁾ The nearest case to truck was probably that of James Troup, Strathmickle. When he failed in 1848, he owed 108 weavers £153.2.4d at the same time 71 persons owed £91.16.8½d to his shop which had a stock of £38.17.4d. At his subsequent failure in 1859, 58 persons owed the shop some £91.14s./

1. F.H. 27/1/1848; S.R.O. CS 318/45/328, Sequestration of J.C. Watson, 1898.
2. S.R.O. CS 280/11/62. Sequestration of Joseph Senior, Merchant, Prinlaws, 1846.
3. S.R.O. CS 318/12/376. Sequestration of Robert Suttie Smith, Walkerton, 1867.
4. S.R.O. CS 318/14/366. Sequestration of Robert Reekie, baker, Leslie, 1869.

£91.14s., the stock then being £74.1.8d; amongst the items were 31 pass books. The inventory of goods gives a good idea of the range and price of items available to a factory community.⁽¹⁾ (App. 4).

Another problem which concerned the Commissioners was the education of factory children. There was a school at Kirkland by 1795⁽²⁾ and in 1796 the following advertisement appears in the *Edinburgh Advertiser*: "Wanted for Prinlaws flax spinning mill, near Leslie in Fife. A sober steady attentive man, to instruct the children about the work in Reading, Writing, Arithmetic and the practical principles of Religion. When not engaged in this way, to superintend the children while at their work, or to do what may be found necessary. Good encouragement will be given, and proportioned to the diligence and activity of the person employed. None therefore need apply but those properly qualified and who can bring attestations of their good moral character. Ground for building to be feued at the pleasant village of Prinlaws on the most liberal terms and those who have children will find constant employment for them."⁽³⁾

By 1833 the Commissioners found that there were 1558 children at work in the Fife factories, of these 97% could read and 57% /

1. S.R.O. CS 280/13/79. Sequestration of James Troup, Strathmiglo 1848
S.R.O. CS 318/4/310 " " " " " 1859
2. Guildhall Library MS 11937/11, Kirkland Mill policy No. 648819
21/11/1795.
3. *Edinburgh Advertiser* 29/7/1796.

57% could write."⁽¹⁾ At Prinlaws they found "a school is kept here gratis for the workers by Mr. Fergus, the workers here are very decent and respectable people."⁽²⁾ At Russell Mill (George Moon) the workers appeared generally healthy, "great pains have been taken by Mr. Moon to have them educated, he has a teacher for them at his own expense."⁽³⁾ At Kinghorn, Swan and Arthurs provided an evening school for their workers the master being George Thomson, "Schoolmaster at the Lanark Mills in Mr. Owen's time."⁽⁴⁾ School facilities at Prinlaws were increased. In 1838 John Fergus purchased a part of the Commonalty of Leslie for the trustees of a school, "for the purpose of affording better instruction and education to the children of the families in the neighbourhood."⁽⁵⁾ The writer of the N.S.A. for Leslie parish reported, "All persons above six years of age in the parish can read."⁽⁶⁾ In 1854, Prinlaws school was visited by Sir John Kincaid, the Factory Inspector, in addition to the school required for the half time workers, he found "there is an excellent school and reading room maintained for the adults, besides an infant school, in which I saw about 60 children of his workmen..... They all looked clean, cheerful/

1. B.P.P. 1834 XXI op.cit. p.303.

2. B.P.P. 1833 XX op.cit. p.118.

3. Ibid p.115.

4. Ibid. p.243. The value of the education, however may be doubted. There are several references in the Commissioners evidence to children falling asleep at their lessons.

5. S.R.O. RS 32/227 p.127.

6. N.S.A. Fife p.120.

cheerful and healthy and even the smallest of them were learning something."⁽¹⁾

Elsewhere in Fife the generosity of the Manufacturer, Robert Philips' trust, which provided a capital sum of £70,000 from 1828, did much to provide education for poor children in the Kirkcaldy area. By 1860, 300 children were being educated in Pathhead alone. At the time of the N.S.A. some 100 children in Kirkcaldy, 150 in Pathhead, 100 in Abbotshall and 50 in Kinghorn were being taught with the aid of trust funds. "Few places in Scotland enjoy such educational advantages as Kirkcaldy."⁽²⁾ In Dunfermline, Erskine Beveridge provided education for his factory children. In 1856 145 children, 80 of whom had parents working for him, were given subsidised education at St. Leonards Works.⁽³⁾ There was also some education provided in the handloom works, the Herald recording such a school at George Birrell's factory in 1843.⁽⁴⁾ However, in Dunfermline many children were uneducated, and this was certainly the case elsewhere in Fife, both in mill and weaving communities. Schools were often too far away for mill children to attend and millowners were reluctant to provide writing materials for children.⁽⁵⁾ It was 1859 before Alexander Watson/

1. B.P.P. 1854-5 XV p.329. Without belittling Fergus' efforts, the cost of educating the factory children was not great. The Prinlaws Ledger shows that for the year 1850 (folio 242) the total expense was £71.4.2d whilst in 1851 the hiring of another teacher had increased the amount to £91.12.8d.
2. N.S.A. Fife p.768.
3. B.P.P. 1856 XVIII p.258. F.Is Report 1856.
4. F.H. 19/1/1843.
5. B .P.P. 1836 XXXI p.64 F.Is Report 1836.

Watson and Son began a school at Blebo Works.⁽¹⁾ A few years earlier, Kincaid had reported, "Among the mass of the juvenile factory population.... there exists a fearful amount of ignorance. From this, however, may be excepted in Mr. Walker's (the superintendant) district, Stanley in Perthshire, Leslie in Fife and the woollen districts."⁽²⁾

However, as far as Fife is concerned, the problem of educating factory children must not be exaggerated. The limiting of childrens' working hours led to a great reduction in the number of children in factories. In 1835, 6,611 children under 13 were employed in factories in Scotland, in 1837 only 1,571 were so employed.⁽³⁾ Further, little mention is made by the Factory Inspectors of schooling in Fife. This is hardly surprising for by 1863 only 1.8% of Scottish factory workers were half-times compared with 9.6% in England.⁽⁴⁾ In 1868 there were 281 half-timers in Fife under the Factory Acts. Altogether in Mr. Redgrave, the Inspector's district there were 68,901.⁽⁵⁾ The danger, as Kincaid had seen, was that with less factory employment, children's standards of education would actually fall for, as the Minister of Dysart had pointed out, "The number of uneducated children in the parish can, in very many instances be traced to the low wages, which the labouring classes receive, and which render it almost impossible for them to educate their children without assistance."⁽⁶⁾

Whilst/

1. B.P.P. 1859 Session II XIV p.423. F.I's Report 1859.
2. B.P.P. 1851 XXIII p.328. F.I's Report 1851.
3. B.P.P. 1840 XXIV, Mr. Hyckson's Report p.683.
4. B.P.P. 1863 XVIII p.446. F.I's Report 1863.
5. B.P.P. 1868-9 XIV p.500 F.I's Report 1869.
6. B.P.P. 1850 XXIII p.295. N.S.A. Fife p.144.

Whilst the Factory Inquiry Commissioners' evidence only relates to the period before 1833, the reports of the Factory Inspectors, chronicle the changing conditions in Fife. Although mill life was not entirely devoid of colour before 1833, the "Herald", for instance, in 1830, records a meeting at Kirkland in favour of reform, and in 1831 on the King's birthday, there was a "Parade by all the work people of Kirkland with the children, accompanied by bands and led by Mr. Peter walked round Leven and Methil and to Wemyss Castle in honour of Capt. Wemyss' support of reform," (1) it was only slowly that conditions began to improve. Works' parties began to be held at New Year (Handsel Monday rather than New Year itself) often on a temperance basis to reduce New Year drinking, as at Balgonie in 1839. (2) The annual ball at Kirkland, organised by Alexander Watson, the manager, who later went to ¹Habo, was probably a more lively affair. In 1843 the workers were given a large pie with ale, along with a whisky punch. (3) At Aytoun's Mill a hot bath was provided for the workers' use in 1845. (4) More culturally, 1840 saw the first concert of the Milton of Balgonie instrumental band attended by 300 in the schoolroom. (5) In 1842, a music teacher was noted at Kirkland and in 1843 music lessons were being given at Prinlaws juvenile school. (6) In 1845, Balgonie Mills had a reading and lecture room with free newspapers and periodicals and, by 1856, at Prinlaws the library contained 1,200 volumes and a reading room had "some of/

1. F.H. 2/12/1830; ibid 2/6/1831.
2. F.H. 24/1/1839.
3. ibid 26/1/1843.
4. ibid 13/3/1845
5. ibid 19/3/1840
6. ibid 27/10/1842; 15/6/1843.

of the best newspapers and periodicals of the day" (such as the "Fife Herald!")⁽¹⁾

Two events in 1847 greatly enhanced leisure opportunities.

The Ten hours Act of 1847, effectively reduced the hours of all workers and led to the introduction of the Saturday half-day. In the same year, the railway from Burntisland to Cupar was opened giving new opportunities for personal rail travel and works outings.⁽²⁾ Workers were now able to devote more time to such pursuits as gardening. 1848 was the first year of the Leslie Cottage Gardening Society's exhibition, although there had been a similar society in Markinch since 1840.⁽³⁾ The improved conditions can be seen from Kincaid's description of Kirkland works in 1855. He described Kirkland as, "a little social world of itself" with its school, evening class and Sunday school for females, a choral society, a sick fund, a meal room for workers who come in from outside, an extensive library and an annual summer excursion. "They form an instrumental band in the village, and in summer evenings perambulate the vicinity with music playing." At New Year, there is a ball given by the Proprietors, "whose liberality and care in the interests of their workers seems to unite all the parts of their social fabric into one harmonious whole."⁽⁴⁾

Brt/

1. F.H. 13/11/1845; *ibid.* 21/8/1856. The Prinlaws Ledger (1850-1852) includes amongst the business expenses the Fife Herald, "Scotsman, North British Advertiser."
2. One of the first works outings was in 1846 from Richard Cobden's Crosse Hall Printing Works in Lancashire. M.B. Smith, *The Growth and Development of Popular Entertainment and Pastimes in the Lancashire Cotton towns 1830-1870*. M.Litt, Lanes 1970 p.134.
3. F.H. 5/10/1848. *ibid.* 29/7/1840. At his failure in 1855 David Lister, a grocer in Prinlaws had amongst his goods 44 lbs of garden peas and beans at 3d per lb. CS 318/10/203.
4. B.P.P. 1854/5. XV p.399 F.I's report 1855.

But the evidence of the Factory Commissioners and the Inspectors of Factories can not stand alone, unchallenged. Firstly, the areas under the Inspector's charge were always too large for close personal supervision. Leonard Horner, the first Inspector, was responsible not only for Scotland but the whole of the North of England. He was, therefore, only able to visit the largest mills in Scotland. (1) James Stuart of Dunearn, the architect of the early Factory Acts, as they were applied to Pife, was at first responsible for Cumberland, Northumberland and Durham, parts of Yorkshire and Westmorland as well as Scotland and Ireland and was solely responsible for Scotland and Ireland from 1837 till his death in 1849. Still, this was too much for one man and in all his years as Inspector, he, for instance only made two visits (1839 and 1846) to the mills in the Duraen. Captain Kincaid, who was appointed on Stuart's death, in his later years confined his East of Scotland visits to Dundee and Forfar. When Kincaid (by then Sir John) resigned in 1862, his replacement, Alexander Redgrave, was made responsible for the Metropolitan, eastern and northern counties of England as well as Scotland. He seldom visited Scotland as he was concerned very largely with the effects of the cotton famine on the North of England.

Secondly, James Stuart was a passionate believer in the value of factory life. This enigmatic man, James Stuart of Dunearn W. as/

1. B.P.P. 1836 XLV p.159. Report by Leonard Horner.

as he styled himself was at the centre of life in Fife and Edinburgh from the end of the eighteenth century. The eldest son of Dr. Charles Stuart of Dunearn, a cadet of the Earldom of Moray, the Stuarts were "connected with some of the principal families in Scotland"⁽¹⁾ Stuart had been involved with Joseph Gordon (partner of Alexander Stuart, holder of the mortgage over Balgonie Mill) in Highland land speculations.⁽²⁾ He had also attempted to feu land for building a mill on the Aberdour burn in 1799.⁽³⁾ In the early years of the Nineteenth century, Stuart threw himself into the promotion of public works. He was convenor of the Queensferry Improvement Committee and active in the encouragement of road improvements and the provision of a water supply for Edinburgh. He was also a regular attender at J.P. meetings in Fife, his conduct, "being distinguished for knowledge, ability and integrity."⁽⁴⁾ But Stuart was a man of faction, siding with the Earl of Roslyn and the Fergusons of Raith, the faction to which Walter Fergus belonged; he was despised by the Earl of Moreton, Lord Lieutenant of Fife, who had Stuart/

1. N.L.S. MSS 9/1/1. Case of James Stuart of Dunearn W.S.1822 p.6
2. James Stuart, *Reminiscences* p.13.
3. *Edinburgh Advertiser* 27/12/1799.
4. N.L.S. MSS 9/1/1 Case of James Stuart p.15; S.R.O. GD 1/555/1, Letter Book of James Stuart 4/1/1816.

Stuart stripped of his J.P.-ship, deputy Lieutenantcy and post in the Volunteers. (1) In the early twenties Stuart was lampooned in the "Beacon" and the "Glasgow Sentinel" for his defence of one James Gibson. This led him to a duel with Sir Alexander Boswell, the perpetrator of the supposed libel, whom Stuart killed at Auchtertool, near Kirkcaldy. Significantly, one of the witnesses for Stuart at his trial was Walter Fergus who "has known Mr. Stuart intimately for a great many years and in habits of great intimacy". (2)

Further connections can be traced between Stuart and the Fife manufacturing class. It was he who put forward the case for the abolition of the stamping of linen, in the convention of the Royal Burghs. (3) Further, Stuart, like so many employers had been a bankrupt, failing in 1828 for over £100,000. (4) In a letter to Ninian Lockhart in 1819 he expressed clearly the paternalist and authoritarian sentiments he was to reveal later "sensible as I am, he wrote, of the system of misgovernment which has prevailed during almost the whole of this reign, and how much the voice of the people and of the House of Commons has been at variance, I am not prepared to put the practical benefits we even now enjoy at risque, by the adoption/

1. S.R.O. GD 1/555/1 op.cit -passim (R. Ferguson of Raith succeeded John Fergus as M.P. for Kirkcaldy Burghs in 1837 F.H .20/6/1837)
2. N.L.S. MSS 9/1/1 op.cit. p.149.
3. S.R.O. B.O.T. NG 1/21/1 29/3/1823. Printed Letter anent Linen inspection.
4. S.R.O. CS 46/11/June 1833 Sequestration of James Stuart of Dunearn 1828.

adoption were it within our reach of the most beautiful constitution in theory that could be devised.⁽¹⁾ Stuart's political beliefs and personal connections are clearly reflected in his interpretation of the Factory Acts.

In a letter to his superintendent Stuart wrote, "You are aware that my object is to show the benefit of the factory system to a great mass of the working classes in giving them food and clothing, protected from the weather, and inducing industrious habits, without injury to their health and morals."⁽²⁾ To this end he believed that children under 13 should not be barred from factory work, letting them become, "A burden on their parents, who have not the means of supporting them at school and are generally brought up in ignorance and idleness."⁽³⁾ He also believed in the intrinsic value of the mill~~l~~owning class, "I do not believe that a more respectable, better educated, more useful or more benevolent class of the community exists than the millowners".... those in the country districts in Scotland ... "Pay scrupulous attention to the wants of the population which they have been the means of collecting and of which they consider themselves the heads"⁽⁴⁾

To achieve his aim Stuart drew special attention to certain show-piece mills in his district. In 1842 he wrote, "The villages established by the factory owners of my district in situations where hardly/

1. S.R.O. GD/1/555/1 op.cit.
2. B.P.P. 1840 X 5th Report from S.C. on Mills and Factories p541.
3. B.P.P. 1842 XXII p.464. F.I's Report 1842.
4. B.P.P. 1840 XIII p.193. F.I's Report 1840.

hardly a house was previously to be seen, at New Lanark, in Lanarkshire; Deanston and Stanley in Perthshire; Catrine in Ayrshire; Prinlaws in Fifeshire; Portlaw in the county of Waterford in Ireland and in many other factories in my district in similar situations afford far better and more comfortable accommodation, than, so far as I have observed, is to be found for any other part of the working population in any other part of Scotland or Ireland" Stuart went on to single out Prinlaws, "the flax factories of Prinlaws, to which I particularly refer, as affording the best example in my district of perfect cleanliness and freedom from dust, which are with difficulty maintained in a flax factory, especially where wet spinning is carried on, and of the most expensive, and, for the population, most advantageous outlays of money in the admirable accommodation in houses lately erected for the operatives and in other comforts afforded to them."⁽¹⁾

The results of such a policy were twofold. Firstly, the Act was laxly enforced, especially as regards wet spinning. In spite of an amendment to the Factory Acts, in 1844, to cover wet spinning, these provisions were still neglected in the sixties.⁽²⁾ Stuart kept firmly to his principles, saying only, "In my quarterly reports of 1842... and 1843, I referred to factories in Scotland and Ireland in which the evil attending the wet spinning process was as great as ever, and to one, that of Prinlaws.... as affording an admirable example where that process/

1. B.P.P. 1842 XXII p.464 F.I's Report 1842.

2. B.P.P. 186809 XII p.504 F.I's Report 1869.

process was carried on without injury to the workers."⁽¹⁾ Fife was fortunate in that the offending mills in the Dunfermline area had largely closed by the time of the 1841 ~~amendment~~.

Secondly, whilst praising showpiece mills like Prinlaws, Stuart was reluctant to criticise inefficient mills, which he felt were insignificant. He did not want to prosecute small factory owners, who perhaps felt that the Acts were not designed for them nor did he wish to build barriers between masters and the inspectors. In a period where many Fife firms were working near the margin, he did not wish to bankrupt businesses "and deprive many an industrious family of their means of subsistence."⁽²⁾ In his first seven years Stuart brought 16 prosecutions, believing that this would bring respect for the Act in comparison with Lancashire where the Act was made light of, 500 prosecutions being instituted in the last 9 months of 1838 alone.⁽³⁾ However, the policy appears to have led to neglect, for the Superintendent Beal wrote to Stuart in 1840, "On reflection, I do not believe that refraining from prosecutions to the extent which you have, was at all beneficial."⁽⁴⁾

One must conclude from the evidence that a high standard was maintained in mills such as those at Kirkland and Prinlaws and in the Works of Swan Bros. at Kinghorn and Kirkcaldy and that the conditions found in some of the large English mills were not typical of Fife; ~~and~~ yet/

1. B.P.P. 1847 XV p.479. F.I's Report 1847.
2. B.P.P. 1846 XX 598 F.I's Report 1846.
3. B.P.P. 1840 XIII p.193. F.I's Report 1820
4. B.P.P. 1840 X op.cit. p.667.

yet there seems no doubt that poor conditions were played down in James Stuart's desire to show the benefits of factory life. A young Dunfermline girl, Anne Drummond summed up the position in 1833 "No evil is to be seen here, only it is a mill."⁽¹⁾ Fife was perhaps fortunate in the nature of her entrepreneurs.

In Kirkcaldy and Kinghorn Swan Bros. was run by public-spirited brothers, the leading partner being Patrick Don Swan, born in 1808, who had Thomas Carlyle for a tutor.⁽²⁾ Swan entered his father's business of flax merchant, Spinner and Shipper in 1828 and with his brothers built up the spinning business by the purchase of mills on their owners' failure in the / ~~thirties~~ ^{forties} and / ⁽³⁾ P.D. Swan was on the Kirkcaldy Town Council from 1834-7 and 1840 to 1845 ('41 to '45 as Provost.) He was again Provost from 1853 until 1886. In 1851 P.D. Swan bought St. Brycedale House, Kirkcaldy from the bankrupt Thomas Russell of Alexander Russell and Sons, engineers, and was also the possessor of the small Springfield Estate, which he inherited from his uncle Colonel Don of Springfield.⁽⁴⁾ Up to this time, Swan had lived in the High Street of Kirkcaldy and, in the Directory of 1834, it appears that 14 of the 22 spinners, manufacturers, merchants and dyers mentioned, lived in/

1. B.P.P. 1833 XX op.cit. p.241.
2. N.L.S. MSS 1764 p.135 William Swan to Carlyle 16/2/1815.
3. William Swan had been a sleeping partner of Charles Arthur and Co. In 1833 one of the Kinghorn mills fell to Swans. In 1843 on Charles Arthur and Son's second failure the remaining property was bought for £1300. In 1837, Swans were seized in Kirk's Mill (Sasines Fife, Persons 1831-40 3219). In 1856 they purchased Park Mill in Cowan Street (F.A. 2/8/1856).
4. Through the Dons, Swan was related to the Millies of Pathhead, William Millie being married to Catherine Don of Springfield - CS 280/38/99 - Millies Sequestration 1851.

in the High Street, in close proximity to their employees. When a brother, William Swan died in 1859, his furniture, one third of that at St. Brycedale, was valued at £300 and his non heritable property in the Stock in Trade of Swan Bros, £12,096:6:8d indicating a total stock of over £36,000.⁽¹⁾ Conolly, in his "Eminent men of Fife", said of William Swan, "For every case of charity, public or private, Mr. Swan, like his brothers, had the free hand and the open heart."⁽²⁾

Elsewhere in Fife, employers had little opportunity of divorcing themselves from their work people. Robert Stocks for instance was quite unsure of the wisdom of buying an estate. When he purchased Abden in 1825 he wrote to a legal friend, Alexander Forsyth, "I hope Mrs. Forsyth along with you will spend a day with me soon and take a walk through Abden, and tell me whether I do right in keeping it, should I be advised to part with it I can at present get a small premium."⁽³⁾ Millowners seem to have lived, in comfortable houses, but always in proximity to the mills. John Peter of Kirkland's furniture was valued at £399:17s. at his death in 1833;⁽⁴⁾ Whilst William Millie, whose family had long been connected with the trade, lived in a house comprising a parlour, drawing room, dining room and pantry, five bedrooms, a nursery, kitchen, laundry and washhouse.⁽⁵⁾ The N.S.A. said of the Millies, They?

1. S.R.O. SC 20/22/31. Inventory of William Swan 1859.
2. T. Conolly, Eminent Men of Fife. p.461.
3. Robert Stark & Co, Stocks Letter B k. R.Stocks to A.Forsyth 11/6/1825.
4. S.R.O. SC 20/22/12. Inventory of J. Peter 1833.
5. S.R.O. CS 280/38/99. Sequestration of W. & J.Millie

they are "men of great respectability (who) take an interest in the morals of their young people."⁽¹⁾ At Balgonie J.G. Stuart was living in a four-bedroomed house with a library and billiard room, Balgonie being described as "a handsome and commodious dwellinghouse on the rising ground to the North of the Mill, with extensive garden and shrubbery in every way suitable for a proprietor's residence."⁽²⁾ Others, such as Robert Kirk, were determined to make their property seem as worthless as possible to keep the creditors off. In his parlour he had, "An old sofa bought at Edinburgh 40 years ago," and a carpet "cut to answer the room which is a particular shape and a very old pattern bought in the year 1795"⁽³⁾

At Prinlaws, the epitome of paternalist management, there were by the 1850s some 200 workers' houses, ordered according to the employee's position, with managers' and partners' houses slightly above the rest, in private grounds. John Fergus himself was an exception, living between Kirkcaldy and Prinlaws at Strathore House. Fergus had entered business in 1823 when his father Walter Fergus, disposed his warehouses to his son, John Fergus, merchant in St. Petersburg.⁽⁴⁾ In 1833 John Fergus entered Kirkcaldy Town Council, topping the poll,⁽⁵⁾ and in 1835 he was elected M.P. for the Kirkcaldy burghs, the Herald commenting on the importance/

1. N.S.A. vol 9 Fife, Dysart p.138.
2. S.R.O. CS 318/7/311. Sequestration of Staig & Stuart, Balgonie 1861.
3. S.R.O. CS 318/17/177. Sequestration of Robert Kirk, Finglassie, 1835.
4. S.R.O. Sasines Kirkcaldy B/41/3/3 p.168.
5. F.H. 7/11/1833.

importance of electing a man of commerce whose father was a self-made

man.⁽¹⁾ From 1847 to 1859 Fergus was M.P. for the County, resigning in the latter year through ill health. During this period, when Fergus had a London residence at 11 Hereford Street, Park Lane, and belonged to the Reform Club, his business appears to have suffered. Ninian Lockhart wrote to the firm in 1849 asking for yarns, "of a quality, something like what Prinlows yarns used to be."⁽²⁾ In 1855 Fergus was rebuked by Thomas Smith, his agent in London. "I am assured by many of the buyers that they will not give orders direct, alleging, as a reason, that no two sendings come up alike. This is not my reason, it's the truth, and while I am your agent, I consider I am bound to tell you, whatever you may think, or however distasteful it may be to you."⁽³⁾

Unfortunately, it is not known how the workers were affected by such inefficiency nor is it known how men like Fergus lived; some idea however of the manufacturers or millowner's life style can be seen from the cash book of Michael Nairn in the 1840s. Like many of his fellow business men he banked with the Glasgow and Ship Bank. Unlike the working class he was able to buy food in bulk. Thus, in 1843, there is an entry for 4 bolls of potatoes, in 1847 for a barrel of flour; the same applied to drink. He would sometimes buy a barrel of porter and in 1841 bought 5 gallons of whisky.⁽⁴⁾ Unlike Fergus he did not have a carriage and groom/

1. F.H. 21/1/1835. Fergus was acutely aware of his position as a manufacturer seeking to represent the Fife county seat. (F.H. 29/7/1847).
2. N.L.S. MSS 3764 Fergus papers. Lockhart to Fergus 24/7/49.
3. Ibid 16/2/1855. Smith to Fergus.
4. Kirkcaldy Museum, Michael Nairn Cash Book No. 4 op.cit 4/11/1843; 7/8/1847; 25/1/1844; 24/11/41.

groom: there are therefore entries such as "Drosky to Kinross with children 17/6."⁽¹⁾ Unlike the workers he was able to take a holiday with his family. In 1843, a "jaunt to the Highlands" cost £4.7.3d and from 1845, a summer holiday in the Highlands became an annual fixture.⁽²⁾ In more subtle ways the employers also had decided advantages. Nairn, for instance, could afford to travel to Edinburgh to have his teeth out.⁽³⁾ In 1843 he bought a pair of spectacles for £1, a stark contrast to the 6d and 7d spectacles, included in the inventory of goods belonging to David Lister, the grocer at Prinlaws at his failure in 1865.⁽⁴⁾ Finally, Nairn like other manufacturers and millowners was quick to join the Free Church in 1843, an act which began to cut the employers off from their work people who remained within the Kirk.

Whilst little is known about the Fife employers and how they treated their work people, the Factory Inquiry of 1833 did reveal a genuine regard for many of the millowners by their work people. It is also clear that conditions were good in the large works and in the smaller mills, poor conditions, often brought about by the employers' lack of funds and ignorance, may have been compensated for by the close proximity of the employer to his work people. Nevertheless, the horror of the conditions found in the wet spinning mills, which were fortunately short lived, should not be forgotten.

During/

1. Ibid 6/5/1843.
2. Ibid 2/9/1843; 30/8/1845.
3. Ibid 26/12/1846; 23/1/1847.
4. 23/8/1844; S.R.O. CS 318/10/203, Sequestration of D. Lister, 1865.

IV

During the thirties, government was as concerned about the position of the country's handloom weavers as it was about the conditions of children in spinning mills. Following numerous petitions to Parliament from Handloom weaving communities, a Select Committee was set up to examine the weaver's plight. In 1834 the report laid before Parliament included the following statement, "Your Committee.... feel deep regret at finding the sufferings of that large and valuable body of men, not only not exaggerated, but that they have for years continued to an extent and intensity scarcely to be credited or conceived, and have been borne with a degree of patience unexampled."⁽¹⁾

This section will set out the position of the weaver in Fife in the decades preceding the introduction of the powerloom, and will show the weavers' losing battle to maintain their position in society. Less use will be made here of Parliamentary Papers for several reasons. Firstly, since the worst conditions were experienced in the cotton towns of the West of Scotland and in Lancashire, little evidence is, therefore, produced for Fife. Secondly, the report by Harding, the Assistant Handloom Weavers' Commissioner for the East of Scotland, in 1839, is much briefer than that of Symons for the West of Scotland.⁽²⁾ Lastly, whereas the powerloom largely replaced the handloom in the cotton industry, forcing the weaver to seek work elsewhere, the different technological scale in the linen industry prolonged the handloom weavers' existence till the second half of the century, the worst conditions being suffered/

1. B.P.P. 1834 X Report from the S.C. on the Handloom Weavers Petitions p.3.
2. B.P.P. 1839 XLII Reports from Assistant Handloom Weavers Commissioners.

suffered in the decade following the governmental inquiries. Only in 1857 did the 'Fifeshire Advertiser' suggest "Handloom weaving seems now destined to be numbered among the things that were."⁽¹⁾

The decline of the weavers in Fife is clearly seen in their falling wages and lengthening hours of work. In 1833 the Dunfermline weaver worked from 5 or 6 in the morning till 6 or 7 at night during the summer, and in winter from 7 am till 9 pm.⁽²⁾ By the time of the N.S.A. weavers in Leslie were said to be working twelve to fourteen hours per day and at Dysart weavers were working from 4 or 5 a.m. till 10 or 11 at night.⁽³⁾ An old rhyme made light of the weavers' long grind,

"The weaver said unto his son, the day that he was born,

All praise be on your curly pow, ye'll gang for pirms in the morn"

Harding, in his report to the Handloom Weavers Commission outlined the overall pattern of falling wages. "The wages in 1790, before the war were stated to have been 5 to 7% higher than at present, while house rents and provisions were much lower. During the war wages were double but fell at the close of it, and declined gradually for many years, they rose considerably in 1825, fell to as low a rate as at present in 1826 then rose gradually till 1836 when they were 25 to 30% higher. For 18 months past trade has been very bad, there seems some slight indications of improvement at present."⁽⁴⁾ The picture is of a declining trend, relieved/

1. F.A. 16/5/1857.
2. B.P.P. 1833 XXI Second Report from the Factory Enquiry Commission p.30
3. N.S.A. Fife pp. 119 and 138.
4. B .P.P. 1839 XXII Report by Harding, Assistant Handloom Weavers Commissioner.

relieved only in such years as the early Twenties when weavers could afford to work less than the twelve to fourteen hour day which was their normal lot. The impression, however, is that the decline began soon after 1815 and continued throughout the handloom era. Chalmers, in his History of Dunfermline shows how the rate per spindle woven declined.

Rate of weaving 50 threes per spindle of warp. (1)

1807	7/8.1/8d	1830	4/1d
1816	6/3 $\frac{1}{2}$ d	1836	3/2
1822	5/0.2/3d	1837	2/10 $\frac{1}{2}$
1825	5/5 $\frac{1}{2}$ d	1841	2/9 $\frac{1}{2}$
1826	4/6 $\frac{1}{2}$ d	1842	2/4
		1844	1/11

Speaking generally of the East of Scotland, the Board of Trustees Surveyor General, David Blair reported depression throughout the area, "If trade does not revive soon 'tis melancholy to think how the poor operative weavers will get through the approaching winter." (2) Referring specifically to Kirkcaldy, Robert Stocks described the wages position in a letter to the Earl of Rosslyn: (3)

1st class, stout active men at fine ticking 8/2d per week net.
2nd class, young men, stout women, and men not qualified to execute finest work 6/-

3rd class, coarse ticking weavers 4/3d.

4th class check weavers 3/5d

Stocks/

1. Chalmers, History of Dunfermline p.378.
2. S.R.O. B.O.T. NG 1/60/54 p.15.
3. Robert Stocks & Co. Letter Book, op.cit. R. Stocks to the Earl of Rosslyn 12/1/1830.

Stocks said that the first class of weaver was not expected to be unemployed, but that the others would be affected: "The third and fourth classes are apprentices whether boys or girls and men who from age are unable to weave anything except coarse ticks or checks."⁽¹⁾ When the general coarsening of the Kirkcaldy trade is remembered, it can be seen how the majority of weavers was forced on to cheaper products not traditionally reserved for the main breadwinners. Further, the coarser goods were those more susceptible to cyclical changes in demand, the finer ticks responding more to the overall growth in the economy. By 1827, wages had fallen below the level of subsistence, Robert Stocks wrote simply to William Temple, "Our weavers are not at present earning as much as buy food."⁽²⁾ At the time of the Factory Inquiry of 1833 it was reported that, taking four weeks to weave a web, the Dunfermline handloom weaver was earning just 5/- per week.⁽³⁾ "There can be no doubt, said the report, that children employed in mills earn more than those in handloom weaving; "the weavers only compensation was the possibility of outdoor work."⁽⁴⁾ Against the declining handloom wages, spinning wages remained virtually unchanged, although the increases in productivity resulted in lower wage costs. John Marshall in 1833 thought spinning wages had remained unchanged for 30 years.⁽⁵⁾ They were somewhat reduced after 1836, as depression hit the spinning trade and fell by 1/6th with/

1. Ibid.

2. Robert Stocks & Co, Letter Book, op.cit, R. Stocks to W. Temple 6/6/1827

3. B.P.P. 1833 XXI Factory Inquiry Commission, Land Report p.30.

4. Ibid p.31.

5. B.P.P. 1833 VI. S.C. on Manufactures Commerce and Shipping p.160.

with the shortening of hours in 1847, but there was none of the remorseless decline seen in handloom weavers' wages.⁽¹⁾

The N.S.A. paints a bleak picture of the weavers' position. The Kirkcaldy contributor thought, after the weavers' expenses had been paid "a very inadequate pittance is left over for his subsistence."⁽²⁾ The Minister of Cults said, "Few even of the best workers, working steadily 12 or 14 hours a day, will, after clearing all expenses, realise a greater sum weekly than 7/-, the clear average wages earned, per week, may be stated at not more than 5/- for a man or woman, and 3/- for a boy or girl. The weaving of linens, therefore, cannot be considered as at present affording by any means an adequate remuneration for the labour employed in it."⁽³⁾ Turning to the Assistant Handloom Weavers Commissioner's report, detailed figures are given for wages in Kirkcaldy and Dunfermline.

Net wages of Kirkcaldy Weavers in 1838⁽⁴⁾

Ticks

Stout men at finest fabrics (42 & 45 porter)	8/3
" " Second class (36 & 40 ")	7/9
Older men and boys. (28 & 34 ")	5/9d

Fine Shetling

Stout men at finest fabrics (40 por 5/4 and above)	6/6
Older men and women (36 por 4/4 " ")	5/4

Dowlas/

1. B.P.B. 1844 XXII. Poor Law Enquiry Commission, Scotland p.339; 1849 XXII. Factory Inspectors Report p.330.
2. N.S.A. Pife p.754.
3. Ibid p.572. The N.S.A. is unsatisfactory in that some of its figures refer to net, others to gross wages, others to average wages. Further, as the account was compiled over a number of years during which wages were declining rapidly figures from various parishes are not fully comparable.
4. B.P.P. XLII op.cit. p.723.

Dowles

Men and young women, (10⁰⁰ to 13⁰⁰ 4/4) 6/6d
 Lads and women, (34 to 45 por 30") 4/6d
 Boys and girls and apprentices (26 to 32 por 25") 3/-

Snail cloth

Heavy work in factories 9/3d

Whilst it was possible for the strong and the skilled to earn higher wages either on fine tick or in the canvas factories, where employment was more regular, owing to the amount of manufacturers' capital tied up in looms and buildings, it appears that the majority were working on coarser goods, because the N.S.A. states that the average wage in Kirkcaldy in 1838 was 6/6d gross. ⁽¹⁾ A more accurate break down of wages is given for Dunfermline. Here the looms were employed as follows ⁽²⁾

<u>Width</u>	<u>No. of Looms</u>	<u>Average wage per week (gross)</u>
3/4ths to 6/4ths 40 threes & coarser	437	6/11d
finer than 40 threes	452	9/5 ³ / ₄ d
7/4ths to 8/4ths 40 and coarser	960	9/6 ¹ / ₂
finer than 40	528	12/1
9/4ths and broader 40 and coarser	135	9/8 ³ / ₄
finer than 40	236	15/4.3/8d.

Again, it was possible for better wages to be earned in the finest products but the majority of looms were working coarser goods. Harding stated/

1. N.S.A. Fife p.754.
2. B.P.P. XLII op.cit. p.718.

stated that the average net wage for Dunfermline weavers was 8/6d per week. Inland, wages were lower than in Kirkcaldy and Dunfermline.

At Auchtermuchty the highest wages found were 7/3d net, the ordinary wages being 4/6d, whilst at Cupar and Ceres, the average net weekly wage was about 4/7d.⁽¹⁾ But wages continued to fall elsewhere in Fife, by

1843 Dunfermline weavers on Dinitys and Dornochs were getting less than 4/- per week.⁽²⁾ By 1857 the Dunfermline Journal was saying

that wages were hardly enough to sustain a single man, let alone a man with a family.⁽³⁾ The impression, therefore, is of wages declining to

near or below the subsistence level throughout the continuing handloom era. In particular years of high food prices coupled with industrial depression, such as in 1836-7, the weavers' situation was worst.⁽⁴⁾

Even in non crisis years, where food prices were high, the weavers' plight was serious. The "Gerald" commented in 1829 that Fife wages were "a small pittance certainly, more especially considering the present state of the corn markets."⁽⁵⁾ There were, in fact, no good years for, even

in 1825, wages were still low, as Robert Stocks indicated to a customer, "The weavers in the district have applied for an advance of wages, and when we tell you that for years past, the best workmen have not earned more than 10/6d, the second class under 9/- and apprentices not more than 4/6d to 6/- per week, we daresay you will agree in thinking the/

1. Ibid p.728.

2. F.H. 9/3/1843.

3. Dunfermline Journal 27/3/1857.

4. D. Thomson, The Weavers' Craft p.335.

5. F.H. 10/9/29.

the request reasonable..... we believe 1/- to 1/3d per week will satisfy them."⁽¹⁾

The irony of the weavers' situation was that they were used to low wages and, if they received more, they worked less hard and less carefully, thus, while Stocks had difficulty procuring goods for customers in 1825 when he was increasing wages, he had a good supply of high-quality goods when wages fell in 1826, "Having at present the complete command of our weavers our goods of all kinds are quite what I could wish them."⁽²⁾ Further, there seemed to be something virtuous about the poor handloom weaver. Those who worked in the handloom factories for better wages were accused of profligacy whilst the typical weaver was commended. Thus, James Aytoun concluded, in his evidence to the Poor Law Commission, "As far as I have seen, the handloom weavers who are worst paid, are the most respectable class of operatives in the parish."⁽³⁾

Low wages were not the weavers' only problem, increasingly he was further handicapped by underemployment and unemployment.⁽⁴⁾ In depression years manufacturers preferred to maintain their weavers, for fear of losing them, when demand again increased; the result was that weavers' were rationed, being for a time without a web and using time in seeking webs from further afield. In inland districts, the employment/

1. Robert Stocks & Co, Letter Book, op.cit. R. Stocks to William Temple 29/3/1825.
2. Ibid. R. Stocks to Francis Morris, Son and Co. 28/7/1826.
3. B.P.P. 1844 XXII op.cit. p.339.
4. Ibid p.355. Evidence of Erskine Beveridge, who highlights the problem of irregular unemployment.

employment of agents was accused of further reducing weavers' wages, because, in a depression, manufacturers employed those agents who charged the lowest commission.⁽¹⁾ The worst conditions were probably experienced in 1842 when, all over the county, there was widespread unemployment and relief schemes had to be devised. In the previous years the "Herald" had reported worsening conditions. In 1840, workers were laid off at Prinlaws, the largest and steadiest employer in the district, a sign of depressed conditions.⁽²⁾ In 1841 a report from Newburgh summed up the Fife position, "Trade which has long been in a dull state in Newburgh is now much worse."⁽³⁾ By March 1842, the "Herald" was reporting distress in Newburgh⁽⁴⁾; 62 of the 271 weavers in Dunshelt were unemployed,⁽⁵⁾ in Auchtermuchty, relief was being given to 200 to 300 persons,⁽⁶⁾ in Kinghorn, the failure of Charles Arthur and Sons worsened the situation; in Markinch, about 200 unemployed were given work by the heritors.⁽⁷⁾ In many cases employment was given to the unemployed by the County's principal landowners. James Harriot of Ramornie (near Cupar) gave work to up to 100 of the unemployed, on his estate.⁽⁸⁾ Weavers from Wemyss were employed/

1. D. Bythel, op.cit. p.123; F.H. 5/5/1842.

2. F.H. 16/4/1840.

3. F.H. 16/12/1841.

4. F.H. 17/3/1842.

5. F.H. 10/2/1842.

6. B.P.P. 1844 XXII op.cit. p.263.

7. Ibid " " p.325.

8. Ibid " " p.284.

employed in digging and trenching on Captain Wemyss' Estate⁽¹⁾ and about 100 were being employed in Leslie.⁽²⁾

In Kirkcaldy, Provost Swan employed weavers in burgh improvements in 1842, but the heritors, as a body, were most reluctant to pay for relief. In 1839, the Council Minutes recorded, "A petition regarding the debt due for the soup kitchen was laid before the Council, considering the debt was incurred entirely for the benefit of the community of the Burgh and that various ineffectual attempts have been made to raise funds to defray the same by private subscription, agree to pay the amount of £70.7.9d, out of the revenue of the burgh, but declare that this is done only under the special circumstances of the case and not to be held as a precedent on any future occasion."⁽³⁾ Thus, in 1842 it was agreed, "in consequence of the present great pressure of the times to contribute the sum of £10.10s. in aid of the funds for the relief of the poor."⁽⁴⁾ Again in 1851, John Hutchison, the Kirk Treasurer lamented, "we are much at a loss how to get at our wealthy townsmens' income who are unwilling to disclose it to us."⁽⁵⁾

The worst problems, however, were faced in Dunfermline, and this town can be used as an example of the extent of depression and the measures taken to relieve it. In 1826 a subscription had been raised in/

1. F.H. 14/4/1842.
2. F.H. 2/6/1842
3. Beaton, indexed Minutes of Kirkcaldy Town Council, 5/2/1839.
4. Ibid 15/8/1842.
5. Kirkcaldy Public Library, Hutchison papers, John Hutchison's Letter Book, 21/5/1851.

in the town for unemployed weavers, and between 200 and 300 were employed on the town's roads.⁽¹⁾ The situation, however, was much worse in the subsequent depressions of 1837-1838, 1842-1843 and 1847-1848, although the number of idle looms, in comparison to unemployed weavers, suggests that many left the town altogether in the depressions. The following table illustrates the position:

<u>Year</u>	<u>Looms idle</u>	<u>Unemployed Weavers</u>
Dec. 1837	900	500
Feb. 1838	550	139
July 1838	617	175 (2)
3/6/1842		695 also 884 dependents (3)
9/3/1843	1358	982 (4)
Feb. 1844		500 (5)
22/6/1848	790	(6)

As the table indicates, the longest and most serious depression was in the early 1840s. In December 1842 the 'Herald' opined, "Paisley alone excepted, no other town in Scotland is suffering so severely at present as Dunfermline."⁽⁷⁾ The depression is reflected in the failure of numerous spinning and weaving companies, including two handloom factory concerns and culminating in 1843 in the suspension of/

1. F.H. 6/7/1826 and 7/9/1826.
2. Dunfermline Public Library, Statement by Operative Weavers Committee 1838 p.8; B.P.P. 1839 XLII op.cit. p.702; Henderson, Annals of Dunfermline p.643.
3. F.H. 3/6/1842.
4. *ibid* 9/3/1843.
5. B.P.P. 1844 XLII op.cit. p.354.
6. F.H. 22/6/1848.
7. *Ibid* 8/12/1842.

of payments by George Birrell, Dunfermline's largest employer. (1)
 The depression was deepened by the lack of female labour in the town, women having been kept out of fine weaving. The problem was aggravated by the barring of women from underground work in the coal mines, which resulted in a deputation of 100 destitute, collier women to the Provost in March 1843. (2)

In 1837/8, a committee of subscribers for relieving the unemployed operatives had been formed, with George Birrell as Convener. £1,331 was raised and 195 men and boys were temporarily employed on road improvements and meal, potatoes and coal were distributed to 278 families. (3)

In 1842 the position was more serious but little more money was raised. By July, 1842, 1,145 had been given out but there were still 398 unemployed persons and their dependents on the food list. (4)

In July, 1842 the "Herald" had reported a cheap provision store had been opened and a clothing committee appointed, "whose exertions have benefitted many; but the evil is far beyond any remedy within the power of private benevolence." (5) However, it seems that with the notable exception of Halket of Pitfirrane, the heritors/

1. Dunfermline failures as notified in the F.H. 9/12/1841. Alex. Aitken, manufacturer; 4/8/1842, Lawrence Wilson, Midmill spinning mill; 29/9/1842, William Meldrum Manufacturer, Henry Donaldson, factory manufacturer; 24/11/1842, John Cooper and Co. Manufacturers, Knabbie Street Spinning Co; 22/12/42. Scotland and Watson, Factory manufacturers.
2. F.H. . 16/3/43.
3. Dunfermline Public Library. Report of the Committee of Subscribers for Relieving the Unemployed operatives.
4. E.F.F. 1844 XXII op.cit. p.355. F.H. 27/7/1843.
5. F.H. 7/7/42.

heritors were unwilling to provide for the town's relief. In March 1843, Erskine Beveridge, the Convenor of the subscribers for the relief of the unemployed, called on the heritors to aid the unemployed but only 5 out of 50 replied to his letter. In a letter to Halket the subscriber's secretary wrote of the manufacturers who gave little or nothing "and have a greater desire of being recognised as the proprietors of land than of table-linen."⁽¹⁾

Such was the depression of 1842 that strike action and violence were resorted to. In August 1842 a large miners' meeting supported by weavers called for higher wages.⁽²⁾ A central Committee was formed, with Andrew Henderson, a weaver, as Chairman and Thomas Morrison, (Andrew Carnegie's uncle) as Secretary and a strike was called, a meeting of the strikers being held at Torryburn. "Shortly before 12, about 2,000 of those engaged in the strike left Dunfermline for the meeting in procession, carrying banners and accompanied by two bands of music. The march and whole proceedings of this large body furnished a remarkable illustration of their organisation and discipline." At the meeting, Henderson and Morrison were arrested and it was only their being given bail by the manufacturers, Erskine Beveridge and James Inglis, which defused the situation.⁽³⁾ The losses which the manufacturers were making precluded them from raising wages.⁽⁴⁾

Dunfermline/

1. N.L.S. MSS 6412, Halket of Pitfirrance papers f 126 12/4/1843.
2. F.H. 11/8/1842.
3. F.H. 1/9/1842
4. B.P.P. 1844 XXII op.cit. p.360. James Hunt of Pittencrief blamed Birrell's failure on his selling goods in London below cost, which because of the size of Birrell's trade hit other manufacturers as well.

Dunfermline also saw more violence than other parts of Fife, aimed particularly at the handloom factories, which attempted to maintain employment at reduced wages. In 1838, a few looms, had been smashed, belonging to weavers, taking work at reduced wages,⁽¹⁾ and, in 1842, handloom factories were attacked and, one in Knabbie Street set alight.⁽²⁾ Again, in 1845, there was violence when Messrs. Alexander tried to give out work at below the price agreed jointly by the manufacturers. Their warehouse and the partners' property was attacked and, as in 1842, the disturbances in the town brought the arrival of a troop of dragoons from Edinburgh.⁽³⁾ Although trade again improved, in the depression of 1847/8, in March 1848, 500 were being provided daily with bread and soup in the town⁽⁴⁾ and, even with the coming of power looms, a reserve of handloom weavers continued to be employed who were always the first to be dismissed in a depression. In 1855, David Dewar and Sons gave £500 to an unemployed operative fund,⁽⁵⁾ In 1861, the Town Council was providing stone breaking for unemployed weavers with families to support and in 1870, there were still about 1000 handlooms in the town as compared with 2,500 powerlooms.⁽⁶⁾ As late as 1878, the problem of the handloom weaver continued. The "Dunfermline Almanac" said of the weavers, that/

1. F.H. 8/3/1838.
2. F.H. 11/8/1842, 18/8/1842.
3. F.H. 19/8/1845.
4. F.H. 2/3/1848.
5. Dunfermline Journal, April, 1855.
6. Dunfermline Register, 1870 p.8.

that year, "when the dullness comes on they are the first to be paid off and from the lowness of their wages they are the more unable to face the want of work."⁽¹⁾

The plight of the handloom weaver, was, therefore, a continuing problem in Fife, which reached its height in the depressions of the 1840s, when private benevolence was unwilling and unable to cope with the continuing problem of unemployment in the weaver communities. The decline of the weavers had clear, immediate effects on the community.

For some, the answer to declining living standards lay in leaving Fife. The unemployment figures show that more looms than weavers were idle; many went into agriculture, or road work, others helped in the building of the railway through Fife, and in railway work from the line's completion in 1847. Not all weavers, however, were suited to heavy outdoor and navvy work.⁽²⁾ In the early forties many weavers left Dunfermline especially for work in Glasgow, Paisley and Tillochcultry.⁽³⁾ By 1855, it was thought that some 500 weavers had left the town. Many had enlisted; about 100 had found work at the Carron Iron Works.⁽⁴⁾ Some also emigrated. The local press records the occasional departure of emigré ships from Fife to the New World;⁽⁵⁾ others, notably displaced flax-dressers from Kirkcaldy, sought work in France, though many of these later returned.⁽⁶⁾ It was often the most enterprising who left and the departure/

1. Dunfermline Almanac 1878 p.2.

2. F.H. 23/4/1846.

3. Ibid 31/8/1843

4. Ibid 13/9/1855

5. F.H. 15/4/1830; 5/4/1832, Leven to Montreal

6. F.H. 21/2/1839, 6/6/1839, 13/4/1848.

departure of families, such as the Carnegies, in 1847, did much to remove from Fife society those who had played an active part in the previous decades and were not to be replaced.

For those who stayed, all standards declined. Weavers, who feared to be seen in their old clothes, stopped going to church; the purchase of a church seat was out of the question and, even seat rents were prohibitive.⁽¹⁾

At Auchtermuchty a witness told Assistant Commissioner, Harding, that "attendance on divine worship is less regular than formerly, and that the education of the children had deteriorated." Harding believed that "much discontent and irritation of feeling appeared to prevail and a stronger disposition to turbulence than at any other place in the district."⁽²⁾

John Hutchison of Kirkcaldy supports this evidence when he says in a letter of 1853, referring to the Portbrae area of Kirkcaldy (where many weaving and spinning workers lived), of the 500 families, "the majority are very careless and irreligious..... there is not more than perhaps $\frac{1}{4}$ of the people in this district that go regularly to any church."⁽³⁾

Housing standards also declined and rent payments became weekly, reflecting a growing hand-to-mouth existence. The trend was also accelerated by the growth of Irish in the population, who were renowned for moonlight flitting.⁽⁴⁾ Another reflection of hardship was the increase in/

1. S.R. O. CS 318/17/177. Robert Kirk's seat in Leslie church was offered for sale in 1836 at £15.

B.P.P. 1834 X Report from the S.C. on Handloom Weavers' Petitions p.81.

2. B.P.P. 1839 XLII p.728.

3. Hutchison papers, op.cit. 7/1/1853.

4. B.P.P. 1834 X op.cit. pp.242/3.

in overdue rents. When James Kerr the Dunfermline manufacturer died, in 1849, he was owed £55:17s. in rents but less than £40 was expected, "Many of the tenants being in poor circumstances are largely in arrears."⁽¹⁾ Inside the house, it was noticed that there was less furniture since pawnbrokers came to Dunfermline.⁽²⁾ People were also wearing more second hand clothing.⁽³⁾

There was too, a decline in standards of food and this coupled with the poverty of accommodation, largely cancelled out any increase in the work of doctors in the area.⁽⁴⁾ (See graphs) As their incomes declined, weavers were less able to buy potatoes in bulk and, with the decline in the potato crop, the price to the weaver was increased; it was not till the later fifties that workers were again able to buy potatoes in bulk.⁽⁵⁾ This was a severe blow in view of their diet, but also meant that the weavers would eat more potatoes. The Factory Inquiry/

1. S.R.O. SC. 20/22/45. Inventory of James Kerr 11/8/1849.
2. B.P.P. 1844 XXII op.cit. p.353.
3. B .P.P. 1834 X op.cit. p.93.
4. B .P.P. 1844 XXII op.cit. p.342. I am indebted to Mrs. Michison for making the Flars' records, collected by the Department of Economic History at Edinburgh, available to me. A study of the Fife Flar reveals that in the period of the French Revolutionary and Napoleonic Wars when weavers' wages increased, the price of meal was also high. Although the average price of meal was somewhat lower in the subsequent decades, the weavers' position was aggravated in that the periods of highest meal prices, 1826, 1836, 1838 and 1846 were also years of distress. The Flars' prices are not a cost of living index, because they do not reflect changes in the retail price throughout the year. Further, low wages were encouraging the consumption of potatoes at the expense of meal. However, as Mrs. Michison suggests in "The movements of Scottish corn prices in the Seventeenth and Eighteenth centuries"; Economic History Review 2nd series vol 18, 1965. reliable figures such as those of Fife do show the trend of prices and help to throw light on years of economic difficulty.
5. F.H. 25/10/1855.

Table 9

Fife Fiar::Price of Meal per boll, 1795 - 1826.

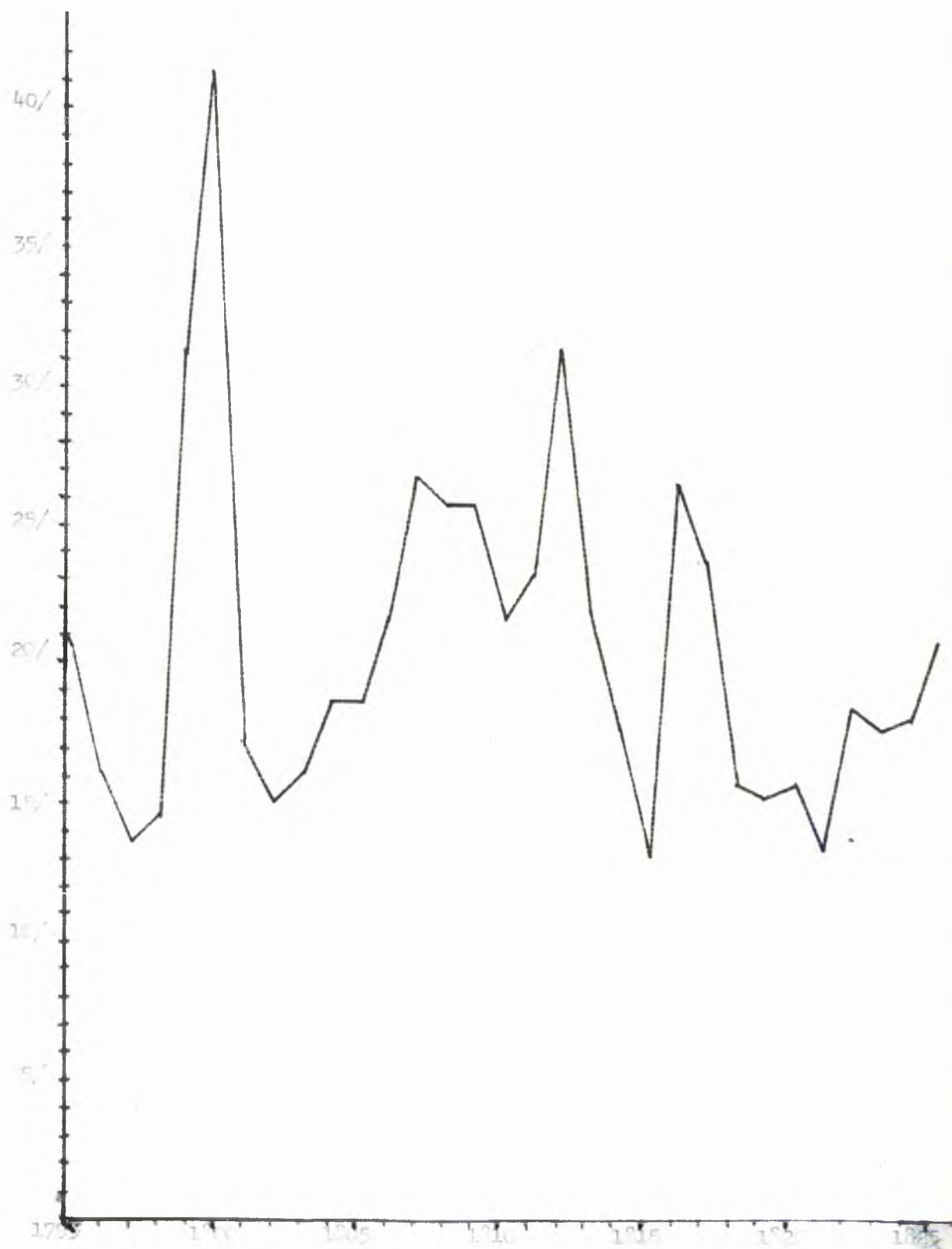
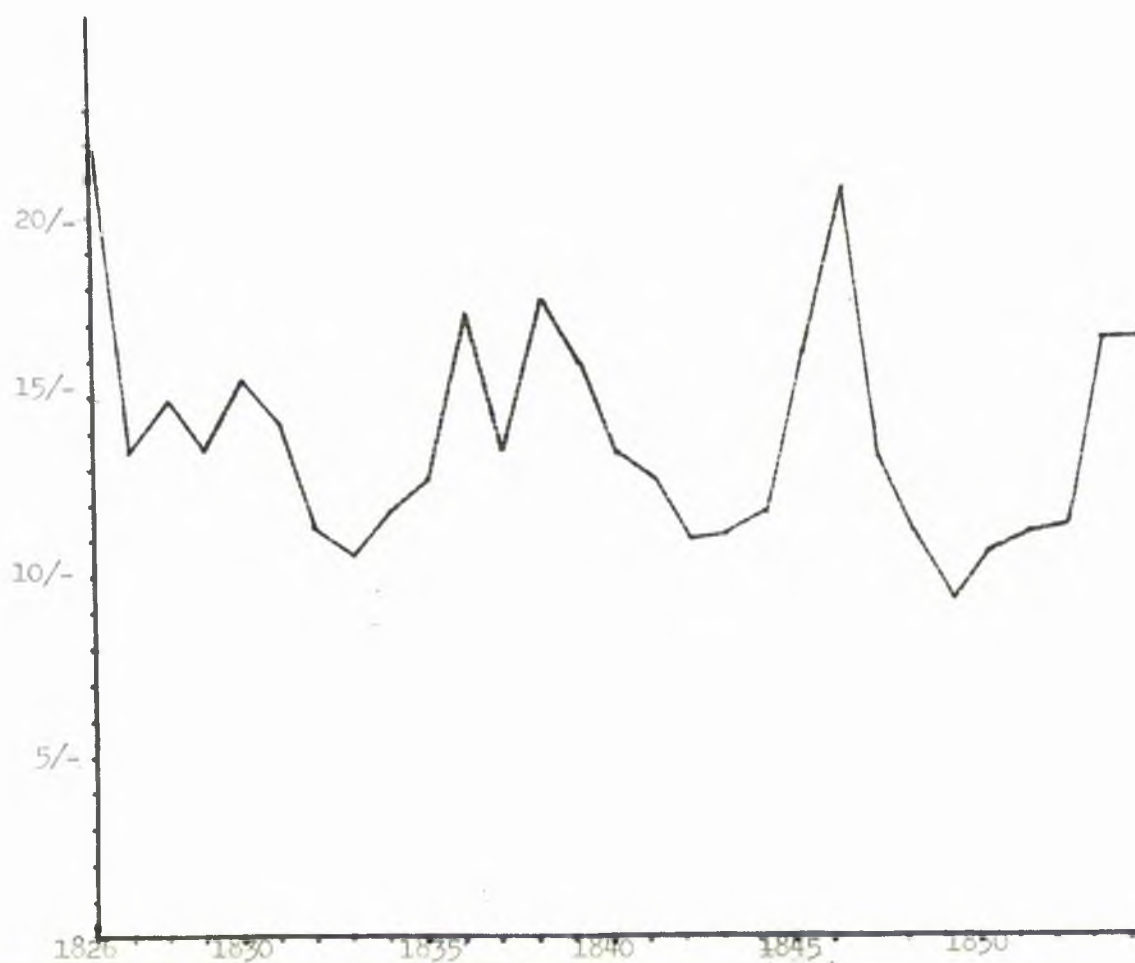


Table 10

Fife Fiar: Price of Meal per cwt. 1826-1854.



Inquiry Commission believed that many weavers and spinners "live entirely upon potatoes, with a little herring or fat."⁽¹⁾ In the Cupar and Ceres area, Harding reported that "the weavers hardly ever eat meat; many cannot even afford meal and milk twice a day, potatoes form the principle article of food."⁽²⁾ The period also saw the beginnings of the sweet-tea-drinking habit as part of the basic diet.⁽³⁾ The weavers' only advantage over the mill worker was that (on the whole) he did not have to rush home for a meal, only the spinners' tea being brought to them in the mill.⁽⁴⁾

The weavers' problems greatly increased the amount of drinking in the County. There were as many as 140 licensed houses in Dunfermline by 1842, and the Dunfermline Total Abstinence Society reported that by 1848 there were some 157 spirit dealers in the town.⁽⁵⁾ At the 1851 census, the population within the Parliamentary boundary was 13,861. The increase in drinking also encouraged the temperance cause; leading textile employers such as the Arthurs, P.D. Swan and the Lookharts being amongst its main adherents. As early as 1830, there is an account of a talk by Charles Arthur to the Kirkcaldy Temperance Society.⁽⁶⁾ In the same year a temperance society was founded in Dunfermline/

1. B.P.P. 1833 XXI. Factory Inquiry Commission Second Report p.31.
2. B.P.P. 1839 XLII op.cit. p.728.
3. B .P.P. 1833 X p.93.
4. B .P.P. 1834 XX Factory Inquiry Commission, Supplementary Report part II p.53.
5. F.H. 6/4/1848.
6. Ibid 16/9/1830.

Dunfermline and it soon had 480 members.⁽¹⁾ In 1838 The Kirkcaldy Abbotshall and Pathhead Total Abstinence Society was formed, of which Robert Lockhart was the president in 1851. This society was one of the first to organise an excursion from the County when 680 sailed from Kirkcaldy to Stirling in 1845.⁽²⁾ The cause was equally strong in Dunfermline where by 1842 the Dunfermline Total Abstinence Society claimed some 2,000 members.⁽³⁾

Distress and increased drinking also was said to have increased the amount of petty crime in the County especially such offences as the stealing of poultry.⁽⁴⁾ Altogether, the decline of the handloom weaver paints a distressing picture and one which long continued in Fife. As late as 1860, weavers were still putting their children to the loom and handloom factories were outside the jurisdiction of the Factory Acts. The "Dunfermline Journal's" conclusion of the conditions experienced are these, "Here the ill-clad, miserably dwarfed, and unwholesome looking boys and girls so employed contrast most unfavourably with the clean, tidy, healthy and happy looks of the powerloom workers."⁽⁵⁾ But why did the handloom weavers wage decline so much?

At/

1. Dunfermline Register 1831.
2. F.H. 26/8/1845.
3. Dunfermline Register 1842.
4. F.H. 6/1/1842.
5. Dunfermline Journal 26/10/1860.

At the end of the Eighteenth century the output of the new spinning mills had increased the demand for coarse linen weavers, bringing into the trade large numbers of women, children and displaced agricultural labourers. On the supply side, in fine weaving, the Jacquard machine had taken much of the skill out of weaving and the ending of hand spinning and the shedding of underemployed agricultural labour increased the supply of weavers. By the time of the N.S.A, from 1/5th to a half the weavers in each parish were women. It was only where there was a high degree of skill, as in fine damask weaving, or of strength, as in broad canvas weaving, or a combination of the two, as in fine, broad damask, that entry to the trade was restricted and wages were, to some extent, maintained. The high cost of the Dunfermline loom may also have done something to restrict numbers. Nevertheless, the number of looms in the town increased from 1800 in 1822 to 3700 in August 1837.⁽¹⁾ Much has also been made of the freedom of entry to the weaving trade and the fact that, by working less in good years, such as the early twenties, weavers made the trade seem attractive.⁽²⁾ Also, because the weavers were scattered, they were unable to form Unions to keep numbers down and Symons, the Assistant Handloom Commissioner for the West of Scotland, suggested that other industries which were unionised, such as the Kirkcaldy engineers, kept weavers out.⁽³⁾ Certainly there were also branches of other Unions in/

1. B.P.P. 1839 XLII op.cit. p.719.

2. D. Bythel op.cit. p.107.

3. B.P.P. 1841 X. Report by Symons, Assistant Handloom Weavers' Commissioner p.316.

in the area such as the carpenters' union in Kirkcaldy and Dunfermline in 1836 and 1837.⁽¹⁾ But research suggests that the urban Weavers of Kirkcaldy and Dunfermline were also to some extent unionised.

In 1825, Robert Stocks wrote that the town's weavers had held a meeting and sent a deputation to the manufacturers to press for higher wages, and said that the weavers had been successful.⁽²⁾ In 1833, the Kirkcaldy and neighbourhood weavers held a meeting to form a Union. It was resolved that there should be no apprentices under 12 and apprenticeship should last 4 years.⁽³⁾ In 1842, a meeting of the Operative Weavers of Kirkcaldy was held to which manufacturers were invited and a Committee was formed to get agreement on wages.⁽⁴⁾ Finally, in 1848, a meeting of weavers was held on the sands and it was decided that weavers would not take any work, at less than the standard rate, from R. Jeffrey and Co. and would support Jeffrey's workers. Jeffreys soon agreed to pay the standard rate.⁽⁵⁾ Similarly, in Dunfermline, the 'Herald' reported that a weavers' combination had been formed; the committee would only allow webs to be taken out at 1816 prices; those offering less would have their webs cut.⁽⁶⁾ The paper suggested that the weavers of the town had been/

1. Bohr V. 1935 p.93. A. Marwick, Early Trade Unions in Scotland.
2. Robert Stocks and Co. Better Book op.cit. R. Stocks to R. Inglis 21/3/1825.
3. F.H. 15/8/1833.
4. F.H. 23/6/1842.
5. Ibid. 6/4/1848; 4/5/1848.
6. Ibid. 28/3/1822.

been divided into quarters with a central committee from 1790.⁽¹⁾

But, the week before weavers had been taking webs at lower prices from Glasgow and elsewhere.⁽²⁾ No union could be effective where demand was falling and yet many were eager to enter the trade. It was increasing competition which cut the weavers' wage.

Not only was the trade conducted by a large number of firms in marginal circumstances but there was direct competition with the cotton trade, which forced manufacturers to cut their margins on goods competing directly with cotton. The abandonment of such goods as cotton and linen checks in Fife, forced weavers onto other linen goods. This competition was also increased by the addition of an Irish dimension. Not only did Irish men come to Scotland and accept low wages (some were brought over by Fife millowners others immigrated), but by 1861, 16% of Fife's population was born outside the County, but where they entered a trade, competing with Fife, they lowered the wages in that trade. Thus, whilst there were Irishmen in Dundee but not in Forfar, a Forfar weaver could say, "what affects Dundee must affect Forfar"; the same applied to Fife.⁽³⁾ Further, the Agricultural system on the continent/

1. Ibid 25/4/1822.

2. Ibid 18/4/1822. From 1809 to 1848, the wages of Dunfermline weavers was controlled by a Table of Prices for in 1809; disagreement about unequal wages "induced some of the manufacturers to draw up the following table of prices." Though the tables kept a steadiness in the trade, weavers could not resist the decline in wages and the rates were reduced in 1812, 1816, 1821, 1830, 1834, 1837, 1842, 1844.

3. B .P.P. 1834 X op.cit. p.261.

continent and in Ireland weighed against more developed areas such as Fife. E.E.R. Green says "The combination of subsistence, farming and weaving made the Irish weaver a cheaper instrument of production than the machine, with the result that the powerloom did not make any headway until after 1859 when population began to decline and wages rise."⁽¹⁾ Inevitably, the remarks on the reasons for the decline in weavers' wages are brief, because the subject has been covered very fully by Mrs. Gaskin, in her thesis relating largely to the cotton industry of the West of Scotland. The reasons for the fall in cotton weavers' wages are of the same nature as those for linen, though the effects on linen were, as suggested, more indirect, springing largely from the competition with cotton which was itself prey to many competitive factors.⁽²⁾

However, peculiar to Fife, was the situation of the community when the weavers' decline began; the efforts of the weavers to maintain their position; and the long term effects of these institutions which their earlier independence had helped to forge. In 1839 Harding reported of Dunfermline, "I remarked in Dunfermline a striking superiority in the internal appearance and furniture of the weavers' cottages, these weavers appeared, as a class, to be remarkable for their intelligence, as well as for the decency and order of their appearance.... In this branch of the weaving trade, although the wages are lower than those of other/

1. E.E.R. Green. The Laggan valley. p.60.
2. B. Gaskin, unpublished Ph.D. Thesis, The Decline of the Handloom Weaving Industry in Scotland 1815 to 1845. 1955.

other artisans, or of agricultural labourers in many parts of the district, I cannot report that there exists any severe distress or destitution."⁽¹⁾ Of Kirkcaldy, he wrote, "The state of education generally among the weavers' children is good. Mr. Forrester's school, is one of the best I ever saw. There is a very large fund applicable to education. The moral and intellectual condition of the weavers is very good, nor is their much actual distress apparent, but embezzlement prevails to some extent."⁽²⁾ Whilst Harding underestimates the distress in Fife and was writing before the worst depression of the 1840s, he nevertheless, reveals the self respect and resilience latent in the community.

At the end of the Eighteenth century weavers fenced their own sites for cottages, and formed self-help societies which formed the basis, for cooperative commercial and political involvement and their enthusiasm for the early savings banks. The cost of weavers' reeds and niffles for stretching fine linen were such that societies were formed to hire these out as needed. Thus the Kennoway Reed Society which survived till 1856, had at the time of the N.S.A. (1836) 122 members and 560 reeds, each of which cost about 5/- when new. Entry to the society cost 3/6d per share.⁽³⁾ At Dunfermline there were three Niffler Societies covering the Woodhead Street, Queen Anne Street and Nethartown/

1. B .P.P. 1839 XLII op.cit. p.702.

2. Ibid p.724.

3. F.H . 30/10/1856; N.S.A. Fife p.386.

Nethertown areas. The Nethertown Society, for instance, was organised in quarters and appointed a Keeper who gave out the nifflers as required. Periodically the nifflers were inspected and "such of them as were in any way broken or injured" were sent for repair.⁽¹⁾ Whilst not suggesting

that such societies were in any way politically motivated, they did form a basis of cooperative training, their annual meetings brought like-minded weavers together and it must be significant that leading political activists played an important rôle in such societies. The Nethertown Nifflers, record in 1844, for instance, "William Carnegie chosen presses."⁽²⁾

Of great long term significance was the weavers' action in forming cooperative societies. Over the years, the cooperative spirit, engendered by the weavers' societies in times of distress, when corn and flour were bought in in bulk, transferred itself through local meal societies into cooperative stores. The Links Bread Society, disbanded in 1920, was said to be one of the oldest Cooperative Societies in Scotland.⁽³⁾

Interestingly, the Links Meal Society purchased premises in 1816 from Walter Fergus.⁽⁴⁾

The Leven Baking Society was founded in 1828 and the Minute Book of the Kettle Baking Society exists from January 1841.⁽⁵⁾

There were also societies at such places as Cupar and Leslie. The Fife Herald/

1. Dunfermline Public Library Minute Book of the Niffler Society of Dunfermline 1835 to 1855.
2. Ibid 26/10/1844.
3. F.F.P. 6/11/1920.
4. S.R.O. Sasines Fife 1781-1820 No. 11181.
5. I am indebted to the Scottish Cooperative movement for allowing me to study Local Fife records at their office in Dundee and at the Headquarters in Glasgow.

Herald' says of the baking societies, quoting the Assistant Handloom Weavers' Commissioner, Harding, "The weavers live principally on potatoes, meal and wheaten bread (which they are enabled to purchase cheaper by having formed joint-stock baking societies, which have prospered very much)"⁽¹⁾

The connection between the Friendly Societies and the Co-ops can clearly be seen at Kingskettle. The account book of the Kingskettle Philanthropic Apron Society begins on the 19th July, 1826. Of the 149 members, 97 of these were weavers. However, it seems that the weavers' decline led to the dissolution of the society in 1836.⁽²⁾ But, in 1840,

a Kettle Joint Stock Meal Society was formed and for the year to 31/10/1842 the Society's income was £471:3:7d.⁽³⁾ Significantly, the new society was composed largely of the membership of the Apron Society and used its account book as a minute book. At a meeting in Kettle Parish School in 1843, Alexander Durie, a Kettle weaver suggested forming "a cooperative provision store". There were obviously such stores existing in the neighbourhood because, the salesman appointed at the Society's meeting was ordered to go to Frauchie, Falkland and Strathmigle "and collect information respecting the management of the stores in those places."⁽⁴⁾

There was also a store at the time, in Leslie.⁽⁵⁾ The Society obviously prospered; to 20/5/1844 half yearly sales were £853:15/-; to 24/11/1845 £1,254.17.6½d. By the ^{Seventies,} / the Society sales were over £6,000/

1. F.H. 16/8/1838.

2. F.H. 21/1/1836.

3. Coop. H.Q. Glasgow. Accounts of the KPAS and Minutes of the KJSM 31/10/1842.

4. Ibid. 13/11/1843.

5. F.H. 2/6/1842. The store was founded in 1840. In June 1842 it gave £10 of oatmeal to the unemployed destitute in the parish.

£6,000 per year.⁽¹⁾ Interestingly, the society was backed by Alexander Lawson, the principal manufacturer in the parish, who agreed to give security for the Society, for £300, at the British Linen Co.⁽²⁾

Writers on the Cooperative movement have tended to concentrate more on the Cooperative ideal and less on the problems of management. It was hard to get good managers for a store and those appointed had to be men of means; thus, in 1866, the new manager at Kettle had to find £50 security for his intromissions with the society.⁽³⁾ Managers and salesmen were also expected to work long hours. The salesman at the Kettle store was to get 10/- per week for working from 7 a.m. to 9 pm. with half an hour for breakfast and the same for dinner. The contract with the manager of the boot and shoemaking branch stated "that he attend personally at the shop from 7 o'clock morning to 9 o'clock evening and longer if necessary, for 14/- per week."⁽⁴⁾ Another real problem was drink, which led to losses and the sacking of staff, and the resignation of committee men. At Kettle, the Baking Society's baker admitted having had too much "but he had given it up this few days, and yet there was no improvement in the bread." The worst case however was at Crossgates near Dunfermline, a mining community increasingly where the Co-operative society supplying women to the Dunfermline powerlooms, / went bankrupt in 1869/

1. Coop. H.Q. Minutes of the Kettle Cooperative Society 20/5/1844; 24/11/1845; 24/10/1870.

2. Ibid 11/12/1844.

3. Ibid July 1866.

4. Ibid 23/7/1844.

Coop H.Q. Minutes of the Kettle Baking Society 1/1/1874.

A Minute of the Auchtermuchty Society for 10/5/1861 records "it was agreed that if the bakers or breakbarrowmen be known to enter public houses as often in the future as they have been in the habit of in the past that they should all be dismissed."

1869. The trustee reported "irregularities of a gross nature" and the Secretary said, "I know nothing about accounts, I could not sum a page of figures." (1) These examples show that long hours were demanded throughout Fife Society and that the problems of drink and mismanagement existed in cooperative as well as profit making enterprise. However, not only did the cooperative societies provide increasing quantities of cheaper food for their members, they also provided a means of saving, which could be cashed-in by widows and workpeople generally in times of hardship or distress. As an incentive to keep money in the societies, if a dividend was taken, a discount was retained per shilling. Thus, for example, at Kingskettle, the 3/- shares issued in 1843 had increased in value to 23.1½d by 1860. (2)

The weavers' communities were amongst the earliest promoters of Savings banks, the first bank in Dunfermline being opened in 1815. Dunfermline and Kirkcaldy were amongst the largest of the trustee savings banks established in the first half of the Nineteenth Century. At Kirkcaldy, a savings bank was proposed in 1838 by Robert Stocks, of Abden, and, when the bank was opened in 1839, all the principal factory owners were trustees or managers; 39 of the first 100 depositors being weavers. (3) At Dunfermline in the first 14 months of the banks' operations from 1837 to 1838, of the 1770 male depositors, 413 were weavers. Between/

1. S.R.O. CS 318/15/63. Sequestration of the Crossgates Cooperative Society 1869.
2. Minute of Kingskettle Cooperative Society op.cit. 3/12/1860.
3. Kirkcaldy Public Library. History of the Kirkcaldy & District Savings Bank pp.9 and 10.

Between 1837 and 1842 27.1% of male depositors were weavers, perhaps a remarkably large number in view of the weavers' position.⁽¹⁾ The sad fact, however, was that by the 1840s, as John Fergus pointed out, people could be destitute even though provident, "There are some occupations, such as, for example that of a handloom weaver, which are not, even in ordinary years, sufficiently remunerated to enable the workmen to save money."⁽²⁾ Smelser has suggested that poor groups, like weavers, were unable to benefit from new movements like Savings Banks.⁽³⁾ The irony of the Fife situation is that, whilst the weavers had helped to create such institutions, the weavers were not immediately replaced, especially in towns such as Dunfermline, by men able to build on these foundations.

This was also the case in the political sphere. In 1830 Leslie was the first town in Scotland to form a political union and by November it had 120 members.⁽⁴⁾ In Dunfermline a political union was formed in 1831, its Secretary being Thomas Morrison, Andrew Carnegie's uncle, and one of the councillors was Carnegie's weaver father, William.⁽⁵⁾ "The union is composed - all but exclusively - of the working classes,"⁽⁶⁾ reported the Union's council in 1832. Its report ended enthusiastically, "Agitation is the order of the day. The night of monastic ignorance is past!"

1. Horn, History of Scottish Savings Banks p.98. Dunfermline Public Library, Annual Reports of the Dunfermline Savings Bank.
2. B.P.P. 1844 XXII op.cit. p.337.
3. N. Smelser. Social change in the Industrial Revolution p.373.
4. F.H. 18/11/1830.
5. Dunfermline Public Library. Dunfermline Political Union. Report from the Council 1832.
6. Ibid p.3.

past, the shadows of a false philosophy flee before the dawn of experimental knowledge, and the mists of pseudo learning are chased by the brightest beams of general and practical intelligence. To accelerate the glorious meridian of truth and freedom and happiness, is the object of our association."⁽¹⁾

In 1840, Hickson wrote, "in the People's Charter, the working classes have a rallying cry which has given, and will continue to give, to an unknown extent, energy and concentration to their efforts."⁽²⁾

Again, the weaving communities were in the forefront of activity, a leading part being played in Dunfermline by members of the Carnegie family.⁽³⁾ In 1837 radical associations in towns like Dunfermline

were strengthened by a visit from Fergus O'Connor.⁽⁴⁾ At Kettle in 1838, there was a large demonstration to choose a delegate for the

National Convention.⁽⁵⁾ For the Glasgow Convention, representatives were sent from Auchtermuchty, Cupar, Ceres, Kettle, Markinch, Leslie,

Newburgh and Dunfermline.⁽⁶⁾ and in May 1839, a large chartist

meeting was held at Kirkcaldy, with banners and bands, to hear the delegates' account of their action at the London Convention.⁽⁷⁾ In

June an estimated 7,000 to 8,000 came to a meeting at Kettle to hear the National/

1. Ibid p.4.

2. B.P.P. 1840 XXIV, Mr. Hickson's Report p.709.

3. B. Hendrick, Life of Andrew Carnegie p.31.

4. A. Wilson, The Chartist Movement in Scotland p.35.

5. F.H. 13/12/1838.

6. A. Wilson op.cit. p.57.

7. F.H. 30/5/1839.

National Convention leaders on their Scottish tour.⁽¹⁾

In 1840 a Chartist Church was opened in Dunfermline and in 1841 a meeting was held in Cupar to found a Chartists' Cooperative store.⁽²⁾ Chartist leaders at first also supported Anti Corn Law Associations. At Kirkcaldy a meeting was held to form an Anti Corn Law association "It was got up and conducted solely by the working classes."⁽³⁾ But later, men such as Morrison and Carnegie, expressed the feeling that the Corn Law agitation diverted attention from the Charter, thus an Anti Corn Law meeting at Markinch chaired by Mr. Baxter of Balgonie Mills was closed, when the Chartist majority called for the Charter as the only means of ending the Corn Laws. However, at Kinghorn, where the main speakers were John Arthur and Alexander Swan of the spinning firms in the town, the Chartist case was overturned and a decision to petition Parliament was proposed by Arthur and seconded by a Chartist. Shortly after, a Kirkcaldy and District United Reform Association was formed, aiming to unite the middle and working class reformers.⁽⁴⁾ Wilson saw Chartism as a means of training "considerable numbers of working men to adopt a high sense of social responsibility and duty."⁽⁵⁾ But nothing could stop the decline in the weavers' wages. At a meeting in Dunfermline the/

1. F.H. 20/6/1839.
2. F.H. 26/11/1840; 18/3/1841.
3. F.H. 6/7/1837.
4. F.H. 21/2/1839; 12/3/1840; 2/4/1840; 13/5/1840.
5. A. Wilson op.cit. p.267.

the position was made clear, "Our fellow workmen have felt their comforts gradually impaired, and their means of moral and intellectual improvement almost totally withdrawn. While animated by a manly determination to support themselves honourably, they have endeavoured by great exertion to maintain that place in society, which it has been their honest pride to occupy, and which many have given them credit for maintaining. But there is a point to the most patient endurance."⁽¹⁾ The very basis of the weavers' self sufficiency was cut from under them.

In Pathhead, the weavers had had a news room, but in 1831 it closed, for the weavers were unable to keep it up.⁽²⁾ All over the county Friendly Societies and their halls began to close. The N.S.A. reported that, at Markinch, the Friendly Society had 224 members but less young people were joining.⁽³⁾ The Strathmiglo Friendly Society, formed in 1806, had 213 members.⁽⁴⁾ But, by 1846, the Society was broken up, no new members had been able to join, many had forfeited their membership through inability to pay their dues, and the number of sick and old members had increased.⁽⁵⁾ Already other Societies had closed. In 1833, the weavers' society had sold their three-storey house in Leven.⁽⁶⁾ At Newburgh, a decline in the weavers' society stock led to the stopping of/

1. Dunfermline Public Library. Statement of the Weavers Committee detailing their proceedings in reference to wages since 1837. 23/3/1838 p.11.
2. F.H. 27/11/1831.
3. N.S.A. File p.685.
4. Ibid p.781.
5. F.H. 9/4/1846.
6. F.H. 23/5/1833.

of sick pay from 1837; within the year this old society, founded in 1783 had been disbanded. Also, in 1837, the Dunshelt Weavers' Friendly Society was ~~dissolved~~.⁽¹⁾ Summing up the position the Assistant Handloom Weavers' Commissioner, Symens said, "With regard to Friendly Societies in the poorer districts, the weavers seem too dejected to attempt helping themselves by these means, and, in fact, the necessary capital to begin with is generally wanting."⁽²⁾ The friendly Societies, which had formed the basis for unions, savings banks and Cooperative stores, were slowed in their growth by the decline of the handloom weavers, brought about by the declining living standards faced in this competitive but stagnant industry. The sad conclusion of the weavers' decline was that there was no one to take their place. Although the mining industry was growing, it was as yet unable to play the weavers' rôle. Franks, reporting on the collieries of the East of Scotland in 1842, said: "My labours have been pursued amongst a population including 7000 or 8000 heads of families, leading a mere animal existence, without religious character, without political bias, without political representation, in short without any political status whatever."⁽³⁾

1. Ibid 22/6/1837; 18/1/1838; 17/8/1837.

2. B.P.P. 1839 XLII. op.cit. Symens Report p.19.

3. B.P.P. 1843 XIII p.482. Childrens' Employment Commission, Report on Collieries in the East of Scotland.

CHAPTER 6

The Decline of the Fife Linen Trade in the Second half of the Nineteenth Century

The stagnation of the Fife linen trade which is apparent, in both the spinning and weaving branches in the ~~thirties~~ ^{thirties} and ~~forties~~ ^{forties} became an absolute decline in the spinning trade from the late ~~60s~~ ^{sixties}, whilst in the weaving trade the volume of output grew much faster than the value. The only rewarding period for the industry was the ~~1860s~~ ^{eighteen sixties} when large profits could be made during the cotton famine in Lancashire. However, this final chapter will show how ill-prepared Fife was to meet the challenge of the ~~sixties~~ and how short-lived was the opulence of the Civil War period for, by 1870, a revitalised cotton industry had emerged to challenge Linen more strongly than before. In the first section the problems facing the trade in the decade before 1860 will be discussed; in the second, an account will be given of the growth of powerloom weaving which ^{did not} became a significant process until the Civil War period. In the third section, attention will be focused on the nature and causes of the decline of power spinning of flax in Fife; and the chapter will conclude with an examination of life in the Linen trade at the turn of the present century.

In 1847, Michael Nairn, a prominent Kirkcaldy canvas manufacturer built a factory in Kirkcaldy to produce floorcloth for the Scottish market. This move signalled the beginning of a new direction in the Fife textile industry, as the production of floor cloth and later Linoleum began to overshadow the traditional products of Kirkcaldy. In a letter/

letter to John Pearson of Balgonie, asking for financial assistance for his project, Nairn wrote "You say the bleaching trade is done. I believe it, and the Linen trade of the district too will still decline, I am persuaded, will you not then go along with me, and run halves in this my great enterprize? I am certain that, by our combined application we could realise, at least a moderate competency before the lapse of 20 years."⁽¹⁾

Although Nairn did not live to see his dreams fulfilled his predictions were essentially correct, as the following decade confirmed. Flax prices, which had risen during the Crimean War, fell in 1856, at the ending of hostilities, only to rise again in years of poor flax crops.⁽²⁾

The threat of Civil War in America and at the end of the decade, the actuality of war and the threat of war between Britain and the Federal States in 1861, continued to depress the Fife Linen industry. In 1857 it was thought unlikely that Lebanon Mill, Cupar, could be sold "until there is a revival of trade generally."⁽³⁾ And in 1861, the trustees of George Wilson did not want to sell Haugh Mill because of the American situation.⁽⁴⁾

But, quite apart from the international position, a spate of business failures severely affected Fife industry in the late ^{eighteen-fifties} 1850s, leaving the county in a poor position to profit quickly from the new opportunities facing the linen trade in the early sixties.

An/

1. Nairn Williamson & Co, Michael Nairn papers. M.Nairn to J.Pearson 31/12/1847.
2. 1858, the lack of Baltic flax kept the price up (BPP 1859 XII p.197, Factory Inspector's report 1858). The failure of the 1858 crop kept the price high in 1859 - (BPP 1859 Session II XIV p.421. Factory Inspector's report 1859).
3. S.R.O. CS 318/50/209. McDonald's sequestration 1857.
4. S.R.O. CS 318/11/34R. George Wilson's sequestration 1860.

An examination of the principal bankruptcies shows clearly how Fife firms were interconnected; what problems they were faced with and why they failed. Dunfermline's largest manufacturer in the 40s, George Birrell failed in 1857, having already composed with his creditors in 1843 and suffered sequestration in 1848.⁽¹⁾ Between 1850 and 1852 he went on hire to J.G. Stuart of Balgonie Mills, Birrell's legal affairs having been dealt with by Stuart and Cheyne of Edinburgh whose leading partner was J.G. Stuart's father.⁽²⁾ In 1853 Birrell's Abbey Gardens Handloom Factory was sold back to him by the Edinburgh and Glasgow bank for £1,450, but he was obviously still very short of capital, because, at his failure £1,031 was still owing. Further he was forced into a joint venture with the new partnership at Balgonie Mills of Messrs. Staig and Stuart to produce Damasks especially for the U.S. market, with Staig and Stuart providing advances to finance the project. The scheme failed because of the depression in the United States markets. At his failure Birrell had consigned to the U.S. £7,614:12/- worth of goods on which £5,732: 4: 4 had been advanced, but little was expected from sales. The trustee commented "From the state of the market in America, it is considered by the trustee very doubtful what part of this apparent balance will be realised." Birrell's position was not made easier by his attempts to defraud Staig and Stuart. He had been advanced money by the Balgonie firm for goods being bleached./

1. S.R.O. CS 318/6/15. Sequestration of George Birrell 1857.
2. J.G. Stuart himself had come into the industry to manage his father's interest in his bonds over Balgonie Mill in the 1830s.

bleached. However, by failing to send a regular return of the goods sent to and from the bleachfield Birrell was able to reduce the value of the security by £1,200 whilst only reducing his advance by £400. (1)

Birrell's failure, affected other firms, such as that of George Thomson of Strathmiglo which failed in the same year. (2) Thomson had been closely involved with Birrell and had had to compound with his creditors on Birrell's previous failure. It also reflects the problems of firms dependant on unsure overseas markets. Thus in 1859 William Smith of Cupar failed, brought down by losses on foreign sales, due to the failure of overseas agents. (3) Similarly John Darling of Dunfermline lost £2,361 on goods consigned to the U.S. between 1855 and 1858. (4) Another factor was the obsolescence of the handloom, which made it impossible for undercapitalised firms to compete with the powerloom or build powerloom works. Thus the 27 looms of Bryce and Ferguson of Dunfermline who failed in 1858 were roused for just £79 including their cards. (5) In the case of John Darling who failed in 1860 his looms had depreciated in value by £1,500 and those in his Burnside Factory at Dunfermline had just been left to decay. (6)

The/

1. S.R.O. CS 318/6/15 op.cit.
2. S.R.O. CS 318/5/344, Sequestration of George Thomson, Strathmiglo 1857
3. S.R.O. CS 318/3/289, Sequestration of William Smith, Cupar, 1859.
4. S.R.O. CS 318/11/61. Sequestration of John Darling, 1860.
5. S.R.O. CS 318/6/16. Sequestration of Bryce & Ferguson, 1858.
6. S.R.O. CS 318/11/61. op.cit. By the time of the failure of John Drysdale in 1877 (CS 318/24/127) his looms were worth little more than the wood they were made of.

The failure of George Birrell inevitably affected Staig and Stuart, but their failure in March 1861, the largest recorded in the Fife Linen Trade, arose as much from factors outwith the industry and again shows the influences at work on Fife businesses. J.C. Stuart who had been in business on his own account at Balgonie since his partner, Baxter had gone to France, was joined in 1854 by J.M. Staig, a merchant in Kirkcaldy since 1841. Typically, Staig brought no capital into the business, having compounded with his creditors in the failure of the London house Winkfield Stuart and Co.⁽¹⁾ However, the firm entered actively into foreign trading, largely as agents for procuring and forwarding consignments to Australia; little linen was sent out, most of the cargoes being made up of Ale, Salt, Cordage, Groceries, Engines, Bags, Oakum and Pigiron. When trade began to decline, the firm was unable to meet the demands put on it. As Stuart explained at his examination, "All advances are made at our sole risk. It is this part of the arrangement which has told so heavily against us. The trade has been in a fearful state for sometime past and the reclamations on advances have been to an extraordinary amount, whilst consigners have in many cases been ruined and unable to pay us"⁽²⁾ Not only were Staig and Stuart carrying on a trading business they were unable to finance - much of it speculative as in their trade in guano - but they also made losses nearer home " we had/

1. S.R.O. CS 318/7/311. Sequestration of Staig & Stuart, March 1861.

2. Ibid.

had also a heavy loss in the spinning trade and on our ships."⁽¹⁾ In 1860, when the firm were already in difficulties Stuart had spent a large sum on Balgonie house, "An expense which I now much regret."⁽²⁾ Stuart had also overvalued the Balgonie Mills, putting £10,000 on them compared with Lord of Leeds' valuation of £7,607. In fact the Mills were bought by Alexander Stuart of Stuart and Cheyne, Edinburgh for £7,000, the trustee having commented "There is little chance of Balgonie Mills selling at present at anything like a fair price."⁽³⁾ Lastly among the firm's total debts of £104,800 ⁽⁴⁾ were large bad debts with Alexander Boswall of Leven and other local firms, brought down in the failure of James Birrell of Kirkcaldy.

Birrell, who had been in charge of John Fergus' interests in Kirkcaldy from 1837 to 1853 with a quarter share in Fergus' Shipping and general business, succeeded to the firm of George Elder and Sons who were Merchants in Kirkcaldy, in 1853. Not only did Birrell rise socially, becoming Provost of the town in 1859 but he enormously increased his turnover from £33,000 in 1853 to £450,000 in 1858. But like so many firms, the growth was based on little capital with scant concern for his accounts. At his failure it was revealed that Birrell had made no complete balance of his books since 1854, "I have had a very great deal of business in my hands and my clerks were young and/

1. Ibid.

2. Ibid.

3. Ibid.

4. Ibid. the extent of the failure is seen in that the dividend on the partners of Stalg and Stuart was 1d in the £1.

and inexperienced."⁽¹⁾ Again, the trade was largely to Australia, in which Birrell was involved in joint ventures with 10 different firms, including the linen businesses of Staig and Stuart. Andrew Lornie, manufacturer, Kirkcaldy, Alexander Watson and Sons, the spinners at Blebo, Wm. Smith and Son of Cupar who failed in 1859 and John Peter Aytoun of Kirkcaldy, the merchant son of James Aytoun. According to Birrell "my foreign trade was profitable". But his failure must have had a severe effect on the Fife trade because, as late as 1863, the trustee reported on "the unsaleable nature of the foreign consignments belonging to the estate, and the depressed state of trade in Australia."⁽²⁾ And, the fact that Birrell was overtrading had been noticed as early as 1855. In that year he changed his account from the Union to The Commercial Bank. The Union had wanted to keep Birrell's discounts down to £20,000 and John Fergus, as a bank director, was unhappy at the way Birrell was carrying on his business. "Mr. Fergus knew my business and had, as I learned, been making remarks on the business I was doing with parties."⁽³⁾

Birrell was also involved in a number of unsound companies. In 1855 he became closely connected with Alexander Boswall & Co. of Leven, of which company he ^{was} made a partner but with no contract of copartnery. Because Boswall, who had failed in 1836 in company with Alexander/

1. S.R.O. CS 318/19/18 Sequestration of James Birrell, Merchant, Kirkcaldy.
2. Ibid.
3. Ibid.

Alexander Guthrie of Dundee at East Princes, had set himself up in Leven under the name of Boswall and Co., the lease being held by his sisters "to protect him because he had been unfortunate 20 years before and had been undischarged by his creditors."⁽¹⁾ In 1858 Boswall's Hawkslaw Works at Leven were extended and Birrell entered spinning arrangements with Boswall and George Wilson of Haugh Mill. Wilson, who had failed in 1838, completely reequipped Haugh Mill between 1856 and 1860 at a cost of over £14,000, using advances by Birrell to pay his bills.⁽²⁾ However, deception had been used. Wilson had assured Birrell that £300 would cover his debts and Birrell had then "made large advances to him besides providing the expenses necessary for carrying on the works."⁽³⁾ As the advances grew to £6,000 the Commercial Bank became suspicious and investigated Wilson's affairs. He was found to be insolvent and was forced to seek the sequestration of his estates.⁽⁴⁾ With his failure, there followed those of Boswall, of Birrell, of Staig and Stuart and of John Ednie of Durie Mill who had also been aided by Birrell.⁽⁵⁾ When Alexander Boswall was examined by his creditors, it was found that fraud existed in bill arrangements at the Commercial Bank for £8,199: 7: 7d between Boswall, James Birrell and George Wilson of the Haugh Mills. Birrell and Boswall having entered a collusive arrangement, the previously-solvent Birrell had been able to get the insolvent/

1. Ibid.

2. S.R.O. CS 318/11/342. Sequestration of George Wilson, October 1860.

3. S.R.O. CS 318/19/18 op. cit.

4. S.R.O. CS 318/11/342 op. cit.

5. S.R.O. CS 318/15/104. Sequestration of John Ednie, Durie Mill, Leven. Of Ednie's debts of £3,293, £1,540 was owed to Birrell. The Dividend on his estate was 6d.

insolvent Boswall's bills discounted at the Commercial Bank. (1) Thus at a time when Flax producers should have been preparing for a period of prosperity several significant firms were brought down by a combination of overtrading in distant markets, speculation, and losses in production at home. Without the capital to finance their ambitious schemes, firms, which included undischarged bankrupts, were forced to resort to fraud. Unfortunately, the extent of the damage caused by the failures can not be ascertained, though the record shows how wide the connections were within the trade. It may be significant however, that in the same period John Fergus, the largest employer in the County, was forced to sell his weaving interests and in 1859 resigned from the House of Commons. The failures connected with James Birrell can be tabulated thus -

<u>Name of Firm</u>	<u>Sequestered</u>	<u>Extent of Claims £</u>
James Birrell, Merchant, Kirkcaldy	October 1860	57,385
George Wilson, flax spinner, Haugh Mills	October 1860	20,912
John Ednie, flax spinner, Durie Mill, Leven	October 1860	3,293
Alexander Boswall and Co. spinners and Net manufacturers, Hawkslaw Works, Leven	March 1861	21,956
Staig and Stuart, merchants in Kirkcaldy and flax spinners at Balgonie Mills	March 1861	104,000

The/

The decade from the ending of the Crimean War to the ending of the U.S. Civil War was one of rationalisation in the Fife Spinning Trade. Whereas in 1857 the average number of spinning spindles per mill was 1630, (44024 spindles in 27 mills), by 1867 the 18 spinning mills and four spinning and weaving factories contained 52,554 spindles, making an average of 2,388 spindles per establishment. It was also a period of rapid growth in powerloom weaving. In 1857 there were just four powerloom works in the County with 864 powerlooms. By 1862 there were fourteen powerloom factories with 1,769 powerlooms, whilst in 1867 24 weaving factories and four spinning and weaving factories contained a total of 4,374 powerlooms.⁽¹⁾ Nevertheless, it must not be forgotten that throughout the period a large number continued to be employed outside the power spinning and weaving works as reellers, winders, handloom weavers and in the bleaching and finishing trades.⁽²⁾ Before considering the extent of the Civil War boom it is necessary to trace the development of the powerloom in the Linen industry, for Fife played a significant part in its introduction.

What Warden describes as "the first really successful manufactory for weaving flax goods by power" was started at Limehouse, London in 1812 or 1813 by Charles Turner and Co.⁽³⁾ The yarn for this enterprise came from the Kirkland Works, Leven and significantly, Turner was/

1. B .P.B. 1857 XIV p.186, Return of flax factories in Scotland.
 B.P.P. 1862, LV, pp.643 and 644 do do
 B.P.P. 1867-8, LXIV, pp.829 and 830 do do
2. The numbers in factories or domestic industry can not be directly compared. However, whilst in 1862 there were 5251 factory employees and in 1867 7585, the census of 1861 reveals a total of 16,168 linen workers in the county and in 1871, 17,156.
3. A. Warden op. cit. p.710.

was, from 1808 to 1814, a partner in Messrs Neilson and Co. of Kirkland. When he withdrew he agreed to leave £8,200 in the partnership representing 20% of the capital.⁽¹⁾ The first power loom works in Scotland was that of George Gordon in Abbotshall, Kirkcaldy. Gordon was backed by Robert Stocks, some of whose records survive. Gordon's works were established in Bute Wynd, then called Steam Loom Wynd, in 1821. The connection with Stocks dates from 1822 when Stocks began to send samples of Gordon's cloth to his own regular customers. Thus, in December 1822 he wrote to William Temple of Bristol... "You will find pind to the grey Tick a swatch of Mr. Gordon's sheeting wove by power. He manufactures flax goods only but you may have them a little coarser than the pattern as may suit you."⁽²⁾ Ten days later, Stocks sent Temple 3 pieces of 9/8 half white sheeting measuring 329 yards at 11d per yard.⁽³⁾ The quality of the goods was obviously acceptable, because quite large orders were soon being placed. Thus, in June 1823 Stocks wrote to Frances Morris Son & Co. in Manchester advising them that he had debited the amount of Mr. Gordon's account, £142: 6:10d.⁽⁴⁾ But Gordon did not have the cash to perfect power weaving nor could he make a profit. Stocks even had to advance money to pay Gordon's wages and was sceptical of his business abilities. He wrote to William Temple, thus "... altho' a well meaning and industrious/

1. S.R.O. CS 239 D/24/12. John Drummond v. Neilson & Co. 1817.
2. Robert Stocks & Co. Robert Stocks, Letter Book op.cit. Stock to Temple 7/12/1822.
3. Ibid. 19/12/1822.
4. Stocks, Letter Book op.cit. R. Stocks, to F. Morris Son & Co. 18/6/1823

industrious man he seems little acquainted with bookkeeping."⁽¹⁾

Although banks were generous with him, he was unable to reduce his debts.

In 1826 he had obtained a £1,000 overdraft with the National Bank of Scotland, which had risen by 1831 to £1,090 and in 1829, the Glasgow Banking Co. (Fergus' Bank) gave him a cash credit of £1,000 on the security of a flat in Edinburgh and the works in Bute Wynd.⁽²⁾ Gordon failed in

1832 and the 'Fife Herald' advertised his Steam Loom manufactory with its 6 horse-power engine as "well adapted for being converted into a spinning mill."⁽³⁾

The Minister of Abbotshall was out of date when he wrote that there was in Abbotshall "1 steam power factory for weaving a thin sheeting" but eventually correct in stating "The low rate of weaving by hand is probably the cause why this branch of enterprize has not been more generally adopted."⁽⁴⁾

Developments continued, however, notably in Dundee where Baxter Brothers began to use the powerloom successfully from 1836; much being owed to the mechanical genius of Peter Carmichael, whose father had moved to Baxters from Neilson and Co. at Kirkland.⁽⁵⁾ In Fife, the first successful powerloom works were built in 1847, in the same year that two small factories were built in Northern Ireland.⁽⁶⁾ In 1836, a large piece of ground was purchased "for the purpose it is believed, of erecting/

1. Ibid. Robert Stocks to William Temple 1/1/1823.
2. S.R.O. Sasines, Fife RS 32/194/p.251.
3. F.H. 13/9/1832.
4. N.S.A. Fife, p.157.
5. A.Warden op. cit. p.712.
6. Ashley, British Industries p.141.

erecting a powerloom factory, where all the common sorts of Dowlas and sheeting will be wove."⁽¹⁾ In 1838, powerloom weaving was unsuccessfully attempted at the Baldrige Works, Dunfermline by R. Robertson, and in 1845, the 'Herald' reported the building of a powerloom factory in Dunfermline expected to have 200 looms.⁽²⁾ But all these were false starts. The slow genesis of powerloom weaving lay in the County's hand loom weaving factories.

As early as 1798, a sailcloth manufactory, that of Messrs. Dempster Gray and Co. of St. Andrews, was offered for sale.⁽³⁾ In 1811, a canvas factory was set up in Kirkcaldy and by the time of the N.S.A. 113 persons were being employed in such factories in the town. There was also a sailcloth manufactory in Abbotshall.⁽⁴⁾ Although Walter Fergus could say in 1823: "There is no such thing as a great factory in this place",⁽⁵⁾ he himself had a canvas factory in the town. In 1825 he sold his "articles for weaving canvas" to Thomas Courtney & Sons of London for £105, the breakdown of prices being as follows:-⁽⁶⁾

30 Weaving looms at 58/-		£87. --
24 canvas at 3/- & 30 straps at 1/6		5. 17. --
25 shuttles at 6d & 14 reeds at 2/6	2. 7. 6)	£13. 15. 6
16 Dressing frames at 16/-	12. 16. --)	agreed at 6. 17. 9
3 Dressing boxes at 6/6d	--. 19. 6)	half valuation
Weighing beam and scales		--. 18. 0
Nails and Shafts		<u>3. 3. 2</u>
		£ 103. 15. 11

In/

1. F.H. 3/11/1836.
2. F.H. 26/6/1845.
3. Edinburgh Advertiser, 24/8/1798.
4. N.S.A. Mife. pp. 754 and 157.
5. S.R.O. B.O.T. NG 1/60/78, 12/6/1823.
6. Kirkcaldy Technical College, Fergus papers, Ledger 1813-1825, 4/3/1825

In 1840 John Bremner of Kirkcaldy built a canvas factory costing £1,666; his looms were slightly cheaper than those of Fergus. The indication then, is that the principal cost of setting up a factory lay in the cost of the building and that canvas weaving was early brought into the factory, because it was a new industry. However, in certain cases the looms were increasingly beyond the handloom weavers reach. In 1847 Michael Nairn sold 2 eight yard wide looms for £40 each.⁽¹⁾ At the end of the year when he set up his floor cloth factory he valued his massive floorcloth looms at £70 each.⁽²⁾

Factory production was slower to develop in the traditional products of Fife, although as early as 1813 the sequestration of Goodsir and Adamson of Cupar reveals the sale of their factory for £414. The plant contained 20 looms, 5 warping mills and 6 pirn wheels.⁽³⁾ In 1832 James Normand built a handloom factory at Dysart, partially from a desire to maintain year-round production. By 1837 there was a factory in Dunfermline and this was soon followed by others, the largest being that of George Birrell in the Abbey Gardens. By 1844 there were 6 such factories in the town "the most improved of which is Mr. Beveridge's at the Spittal Bridge".⁽⁴⁾ Undoubtedly, factories were built because weavers were unable to afford the looms needed for the increasingly fine, broad work of the town. Chalmers believed they cost up to £45.⁽⁵⁾ Even the

20/

1. Kirkcaldy Museum, Nairn papers, Michael Nairn, Cash Book No.4, 19/6/1847.
2. Nairn Williamson Ltd. Nairn papers, M. Nairn to J. Pearson, 31/12/1847.
3. S.R.O. CS 251/3432 Sequestration of Goodsir & Adamson, 1813.
4. Chalmers, History of Dunfermline Volume I p.367.
5. Ibid. p.379.

20 looms with which John Darling set up, valued at £12 to £13 would have been beyond the weaver's reach.⁽¹⁾

The difficult years of the mid-forties forced several handloom factories, made to cut their prices, to close. In 1845 Scotland and Watson's 36 looms and pitnhouse was offered for £400 and in 1848 Birrell, Giraud and Dixon's large enterprise comprising a warehouse and 114 looms was put on the market.⁽²⁾ Yet, these handloom works were the base for powerloom production, started by Normand at Dysart, James Troup at Strathmiglo and David Scott in Dunfermline in 1847. Normand went on to make a great fortune in the Civil War period; Scott, who set up his works in Foundry Street in what had been James Kirkland's spinning mill until 1836, with some 81 looms, for 30", 42" and 60" cloth, failed in 1848 probably due to losses on sales to America. At Scott's sequestration it was shown that advances had been made on his consignments, "to very nearly their full value."⁽³⁾ Although Erskine Beveridge began to weave by power in 1851, it was not till 1857 that centres such as Kirkcaldy began to use power. Other centres had begun to weave Ticks by power and life had to compete.⁽⁴⁾

Power weaving of linen was slow to be adopted for several reasons. Owing to the inelastic nature of flax it was difficult to adapt a machine which could weave flax without continually breaking the weft. It was not till 1841 that an effective loom, that of Kennworthy/

1. S.R.O. CS 318/11/61. Sequestration of John Darling, 1860.
2. E.H. 27/2/1845; 28/12/1848.
3. S.R.O. CS 279/259. Sequestration of David Scott, 1848.
4. F.A. 16/5/1857.

Kennworthy & Bullough of Blackburn was developed.⁽¹⁾ The first powerlooms were only suited to plain cloth and much of Kirkcaldy and Dunfermline's output was patterned. Further, in a period where machinery was liable to rapid improvement, old machinery quickly became redundant. Finally, the capital outlay in building and equipping a factory was high in comparison with domestic weaving. The problems faced can clearly be seen in the sequestrations of James Troup in 1848, and 1859.⁽²⁾ In 1848 Troup's 64 powerlooms, bought from Joseph Lomas, a machine maker in Glasgow were valued at £640; by 1859 these same looms had depreciated to £504. In 1848 the total machinery in the factory was valued at £1,011; by 1859, much more sophisticated jacquard machinery had been adapted for powerloom weaving and the total value of the equipment had risen to £1,371. But the principal cost of becoming a power manufacturer was in providing the building and steam engine. In 1859 Troup's factory was valued at £770, the steam engine at £245 and the gearing and shafting at £148;12/- giving a total of £2,535:4:2d.⁽³⁾ Scott's factory had been insured for £1,200 and his looms and goods for £1,000.⁽⁴⁾ A surviving list amongst the Fergus papers entitled "A list of webs given out for hand and power loom by James Troup and Son, Strathmiglo, on account of John Fergus, esq; Prinlaws, June 13th to 19th 1856" clearly indicates that the powerloom was/

1. D. Bythel, op. cit. p.78.

2. S.R.O. CS 28/13/79. CS 318/4/310. Sequestration of James Troup.

3. Ibid.

4. S.R.O. CS 279/259 op. cit.

was then only suitable for plain and narrow goods.⁽¹⁾

Hand Loom

5	webs	Huck towels	48 + 54	porter)	22 to 86½" wide
2		Damask napkins	50 + 67½	pr.)	The Damask was
6		Birds Eye Diaper	45 + 60)	all wide.
7		Damask	52½ to 75)	
10		Loom Dowlas	34 + 36)	
2		Sheeting	32 + 36)	

Power Loom

7	webs	Red End	28 + 38)	
5		Twill	26)	
2		Diaper	26)	17½" to 23" wide
3		Cream Huck	23)	
2		Striped Dowlas	22)	
1		Damask	40)	56½" wide

Although powerlooms were set up at the Kirkland Works, at Prinlaws and at Balgonie, the principal developers were the handloom manufacturers. Between 1857 and 1868 some 14 linen factories were set up in the Kirkcaldy area. By 1864 there were 4 steam-power factories in Dunfermline. Factories were also set up in Auchtermuchty, Falkland, Freuchie, Kingkettle, Ladybank, Strathmiglo, Tayport and East Wemyss. By 1870 some 2,910 workers were employed in factories about Kirkcaldy containing over 2,200 powerlooms. A number of these firms such as Robert Stocks and Co, Robert Speedie and Sons, Thomas McLaren and John Main, continued to employ handloom weavers.⁽²⁾ In Dunfermline, powerloom/

1. Fergus papers.

2. J. Bryson the Industry of Kirkcaldy and District, passim.

powerlooms which had risen to 1,005 by 1863 had increased to 2,670 by 1871.⁽¹⁾

The indications are that the scale of the early powerloom factories was much greater than the early spinning mills, though statistics are few. When David Lornie and Sons of Pathhead formed their partnership in 1865, the capital was £12,000, divided between David Lornie senior, David, Junior and George in the ratio 3: 2: 1.⁽²⁾ When Robert Speedie and sons formed a new partnership on the father's death in 1875 James contributed £22,666 and Thomas £22,153.⁽³⁾ Finance, however, was raised by traditional means. James Reekie of Falkland, for instance, who failed soon after the completion of his factory, was lent £1,800 in renewable bills by the Manchester merchants to whom he sent most of his output.⁽⁴⁾ Louis Chiffelle, who began business in Kirkcaldy with 6 looms, building up to 54, began with a small capital of £200 from his mother.⁽⁵⁾ Robert Drysdale, who began business in Dunfermline in 1867, had £1,775 from his father's estate and £400 from his mother's estate.⁽⁶⁾ Where capital was scarce, the old practice of hire weaving was resorted to, as in the case of James Troup who worked for John Fergus, between 1852 and 1857. In this and other cases, the standard commission was 5% on wages paid.⁽⁷⁾ In North Fife there is an indication of Dundee capital spilling over into Tayport/

1. Dunfermline Almanac, 1872, p.4.
2. S.R.O. CS 318/26/218. Sequestration of David Lornie and Sons 1881.
3. S.R.O. CS Sequestration of Robert Speedie & Sons.
4. S.R.O. CS 318/13/297. Sequestration of James Reekie, 1867.
5. S.R.O. CS 318/20/68. Sequestration of Louis Chiffelle, 1874.
6. S.R.O. CS 318/24/127 Sequestration of Robert Drysdale, 1877.
7. S.R.O. CS 318/4/318. Sequestration of James Troup 1859.

Tayport. Both Blackie and Gibb and Cleghorn and Walker in Tayport had business addresses in Dundee.⁽¹⁾ Wm. Meldrum, jute spinners, who took over Cleghorn's works, were almost totally indtbed to Dundee merchants.⁽²⁾ There was, however, a tendency for the provision of capital to become institutionalised; not only were banks playing a larger part in their supply of cash credits but Flie spinning and weaving firms, developing in the period, were assisted by such institutions as the Scottish Provident Institution and the Heritable Security Investment Association.⁽³⁾ There is no indication of the formation of Limited Companies as took place in some cases in Ireland.⁽⁴⁾

The majority of successful powerloom firms were built on the profits made in the early ~~1860s~~^{sixties}. Thus, Robert Stocks built the works in Abbotshall in 1864, out of the Civil War profits. His ledger records the balance transferred to his private ledger thus:-

1863	£7,644 (5)
1864	3,312
1865	10,790
1866	10,059

The largest works, however, were the St. Leonard's Works of Erakine Beveridge at Dunfermline. When Bremner visited the works in 1866 there were 900 powerlooms and 180 handlooms at work. Altogether some 1500/

1. Slater's Directory for Scotland, 1867.
2. S.R.O. CS 318/20/252. Sequestration of William Meldrum & Sons, 1874.
3. S.R.O. CS 318/20/144. Sequestration of Alexander Gilchrist 1872.
S.R.O. CS 318/12/376. Sequestration of R.S. Smith 1864. There was ~~an~~^{an} increased borrowing from Life Insurance Cos. Wilson for instance had assigned policies and property to the North British Insurance Co. in security for £7500 (. Wilson's sequestration CS 318/11/342
4. Greeves. The Effects of the American Civil War on the Linen, Woollen and Worsted Industries of the U.K. PhD Bristol 1969, p.428.
5. Robert Stocks and Co, Ledger No. 2 1863 to 1867.

1500 persons were employed, 90% of whom were women - "Dunfermline", he said, "is the chief seat of the manufacture of table linen in Britain - indeed, it may be said in the world". Not only was St. Leonards the largest factory in Dunfermline, but "the most extensive of the kind in Britain."⁽¹⁾ Erskine Beveridge, the founder of the Company, is an example of the position which could be reached in the Fife linen trade.

He was the son of David Beveridge, a baker, deacon of the Baxters in 1795 and Convener of Trades in 1797.⁽²⁾ At the age of 20 Erskine Beveridge set up as a draper, but in 1833, he sold the business to become a Damask manufacturer, building a handloom works at Priory Lane, before moving to St. Leonards where he built an imposing warehouse and powerloom factory. When he died in 1864, the assets of the firm of Erskine Beveridge and Co. were valued at £127,999.7.11d.⁽³⁾ Beveridge had been on the Town Council since 1828, and was subsequently Treasurer, Dean of Guild and Provost in the depression year 1842, and for the next 6 years. He was a member of the Council of the Anti corn Law League, the founder of the Canmore Street Congregational Church and, as a radical, he founded the "Dunfermline Press" in 1859. Both Kossuth and Louis Blanc visited him in Dunfermline. The "Saturday Press" said of him "His home and purse were alike open to the proscribed of Europe."⁽⁴⁾ In 1853 Beveridge bought Brucefield Estate/

1. D. Bremner. The industries of Scotland, p.237.
2. Hallen, Beveridges in Dunfermline p.12.
3. S.R.O. SC/20/22/38. T.D. & S. Erskine Beveridge 2/12/1864.
4. "Saturday Press" 6/12/1864.

Estate from Alexander Struthers for £12,000.⁽¹⁾ In the dining room at Brucefield hung a portrait of Beveridge by Sir Daniel Maconie, a symbolic testimony to Dunfermline's most successful businessman.⁽²⁾

But the Civil War boom was very short lived. In 1861 John Pearson had written to Michael Nairn of Kirkcaldy "business still very dull in our way."⁽³⁾ By 1865 Fife spinners and manufacturers were beginning to make losses. Louis Chiffelle, who failed in 1874, said at his examination that his business only paid in 1863 and 1864; from 1865 trade began to fall off and, by 1870, he was settling with his creditors for 9/- in the £.⁽⁴⁾ James Annan, who spun flax at Pitscottie Mill till his failure in 1872, said "The business paid moderately well till the end of 1865. About that time I found myself involved in consequence of losses in consignment of yarns."⁽⁵⁾ Robert Stocks' profits slumped from £10,000 in 1866 to £754 in 1867 and £490 in 1868.⁽⁶⁾ Although in 1865 there was a pent up demand from the South for household linens unobtainable in the Civil War, and the demand for fine goods continued, the linen trade had overexpanded and By 1869 even Dunfermline was feeling this overexpansion.⁽⁷⁾ During the Civil War/

1. A. Henderson, annals of Dunfermline p.668.
2. S.R.O. CS 20/22/38. op. cit.
3. Nairn Williamson, Nairn papers. Pearson to Nairn 6/7/1861.
4. S.R.O. CS 318/20/68. Sequestration of Louis Chiffelle, 1874.
5. S.R.O. CS 318/18/7. Sequestration of James Annan & Co. 1872.
6. Robert Stocks & Co. Ledger 2.
7. Dunfermline Register 1870.

War, wealthy cotton firms had built new plant to meet the large demand for cotton goods expected at the end of hostilities and many undercapitalised firms had closed down, leaving a rationalised and revitalised cotton industry to compete with an overexpanded linen trade.⁽¹⁾

Demand for fine household Linen, such as the Damasks of Dunfermline and the Sheetings and Ticks of the Kirkcaldy area, increased throughout the last quarter of the Nineteenth century in response to higher living standards and increasing population, in Britain, North America and the British Colonies. A notable source of demand was the growing number of steam shipping companies in the period and the competing railroads across America, each^f which required large quantities of ciphered goods such as towelling, sheeting, tablecloths and napkins.

Such was the demand for Dunfermline goods in the United States that a U.S. Consul came to the town in 1872.⁽²⁾ In fact, the town became dangerously dependent both on the production of its staple linens and on their sale to the United States. By the 1880s Dunfermline was dependent both on the state of the U.S. economy and to a lesser degree on her tariff policy. Thus, following the U.S. depression from 1884 which brought high unemployment, caused by the fall in iron and steel output, sales of Dunfermline goods declined.⁽³⁾

By/

1. Greeves, p.75.
2. Dunfermline Register 1872.
3. Royal Commission on the Depression in Industry, 1891. Appendix II part D p.372.

By contrast in 1897, the Dunfermline Almanac reported that "The staple trade revived after the United States election."⁽¹⁾ In 1898, there was confidence in the town on the belief that U.S. tariffs would be lowered, though "those in responsible position seem to think there will always be a demand for Dunfermline goods, let the tariff be what it may."⁽²⁾ Dunfermline was also affected by growing continental competition in its staple products, notably from Germany and Belgium.⁽³⁾ The production of Dunfermline cotton Damasks, coloured union Damasks, Diapers and Huck towels, were most hit by U.S. tariffs when combined with the growing output of cheap U.S. cotton goods.⁽⁴⁾ Thus, whilst the volume of Dunfermline goods sent to the U.S. increased, the profit margin decreased.

Sales to U.S. from Dunfermline (£000). (U.S. Consular figures quoted in Dunfermline Almanac)

1892	291	1888	326	1894	279
1883	284	1889	317	1895	264
1884	266	1890	259	1896	302
1885	247	1891	312	1897	214
1886	256	1892	309	1898	251
1887	No. figs.	1893	219	1899	302
				1900	249

By the end of the century, there were attempts to increase the colonial trade, especially to Canada, which gave British goods preferential treatment. Steel and Co. of Dunfermline concluded "Canadian/

1. Dunfermline Almanac 1897 p.5.
2. Dunfermline Almanac 1898 p.7.
3. Report from the Tariff Commissioners, Vol II, The Textile Trades, part 7 para 3630.
4. Ibid, para. 3669.

"Canadian preferential rebate has increased our trade."⁽¹⁾ Companies such as Walker Reid and Co. of Dunfermline had agents in Australia, New Zealand, South America, the U.S. and Canada, and also made sales in South America and Cuba through merchants.⁽²⁾ Nevertheless, the trade was dominated by its sales to the United States and the town was dangerously dependent on one range of products. As there was little male employment in Dunfermline not only were families dependent on female earnings, but employers had to look further afield for their employees. Erskine Beveridge and Co. built a branch factory at Cowdenbeath in 1889 and factories at Ladybank and Dunshelt in 1903; whilst Walker Reid and Co. had a special arrangement with the railway company to bring workers from the mining areas of Dalmeny and Thornton. In their evidence to the Tariff Commissioners they said, "Manufacturers complain in the Dunfermline Damask and linen trade that there is a chronic want of female labour."⁽³⁾ At the same time, the manufacturers' problems were heightened by a growing reluctance amongst women to enter the textile trades. As a growing generation of better-educated women came on to the labour market they increasingly sought work away from the linen factories. But as long as demand for fine linens grew, the Dunfermline workers were in an advantageous position. Steel & Co. remarked, at the end of our period "We have had sufficient orders for a number of years to enable us/

1. Ibid paras 3882, and 4321.

2. Ibid para 3887.

3. Ibid para 3690.

us to work full time and give our workers full employment."⁽¹⁾

Elsewhere in Fife, sales to the U.S. were also important. Lumsdens of Freuchie were hit hard by the tariff increases in 1897; the Americans could now produce Union towels cheaper than in Fife,⁽²⁾ Kirkcaldy was also affected. In early 1894 the trade of the town was depressed, due to the unsettled financial conditions in the U.S.⁽³⁾ However, by August of the same year, the expected settlement of the tariff question was thought likely to stimulate Kirkcaldy trade.⁽⁴⁾ Kirkcaldy also suffered from the dumping, by continental countries, of sheetings and bed tickings and the dumping of cotton duck in Britain, by the American cotton duck trust.⁽⁵⁾ However, the strong liberal element amongst the Kirkcaldy manufacturers stood out against protection on principle, although it was felt that foreign competition could not be met, where hours were longer and wages less.⁽⁶⁾ "The vexatious and costly demands made upon manufacturers by factory legislation constitutes a serious drawback to their (the manufacturers') efforts to meet foreign competition", commented Robert Wemyss & Co. of Kirkcaldy.⁽⁷⁾ The evidence from the ledgers of Robert Stocks & Co. show the firm strengthening its ties with its old contacts in the home trade, notably the London furnishers, Maples and Heals. From 1880 increasing/

1. Ibid para 4246.

2. Ibid para 4156

3. F.F.P. 19/5/1894.

4. F.F.P. 11/8/1894. H.V. Faulkener, American Economic History p.550. The average tariff level fell to 39.9%

5. Tariff Commissioner's report op.cit. paras 3631 and 3672.

6. F.H. 8/8/1903 and 15/8/1903.

7. Tariff Commissioners op. cit. para 4059.

increasing sales were made to Jaffe Brothers of Dundee, exporting merchants. When Jaffes went into business in America, Stocks began to sell directly to the American agency; sales also grew to such wellknown American merchants as Marshall Field and Co. of Chicago. At the end of the century sales began to increase to Canada, confirming the general tendency of trade at the time.⁽¹⁾ Overall, however, the position of Kirkcaldy was more secure, for, as Sheriff MacKay wrote, "Kirkcaldy has never had all its eggs in one basket and possesses, besides linen and floorcloth factories, extensive iron foundries, a chemical work and several breweries and flour mills."⁽²⁾

If the linen manufacturing trade continued to expand in the last quarter of the nineteenth century, quite the opposite is true of the spinning trade which declined absolutely. Whereas, in earlier decades, firms had often failed, only to be bought by other textile producers or carried on by the previous owners after composing with their creditors, spinning mills now closed, often for conversion to other uses or to face complete dereliction. Where there had been 32 spinning mills in Fife in 1870, there were but 8 flax spinning mills in the County in 1910 in the hands of just 5 companies,⁽³⁾ and that was much more than Leeds, where the number of mills had declined from 20 in 1885, to 1 mill for hemp and coarse flax in 1905.⁽⁴⁾ Although mills/

1. Robert Stocks and Co, Ledgers 5 and 6, *passim*.
2. A.E.G. Mackay, *History of Fife and Kinross* p.194.
3. F.F.P. 8/1/1909. The surviving firms were N. & N. Lockhart, Bennoch Works, Kirkcaldy; J. & W. Hendry, West Bridge Mills, Kirkcaldy, James Normand & Co. Ltd. Dysart; The Boase Spinning Co. Ltd., Hawkeston Works, Leven and John Fergus and Co. Princes Risborough works.
4. Tariff Commissioners, *op. cit.*, para 3617.

mills closed throughout the last two decades of the century by far the worst period was that of high flax prices in 1886, which followed the exceptionally severe winter of 1885-6.

Mills were put on short time and, in March, matters were worsened by the closure of part of Normand's mill at Dysart, the failure of the manufacturers Robert Speedie and Sons, and a fire at the Haugh Bleachfield.⁽¹⁾ In June of that year Swan Brothers, who employed some 700 workers in Kinghorn and Kirkcaldy failed, with liabilities of over £40,000. The Fife Free Press commented at the time "The reported suspension of Messrs. Swan Brothers, flax spinners and Bleachers has fallen upon the community with a shock of surprise, the like of which it has not received for many a day."⁽²⁾ A fortnight later, the Stuart family at Balgonie, found that they had been unsuccessful in their attempts to sell Balgonie Works, following the death of Alan Stuart, the proprietor. The Mills had been sold to David Templeman of Blairgowrie for £4,700 with a burden of £3,500 left on the property but Templeman failed and the deal fell through. Joseph Gordon Stuart, the firm's executor wrote to William Williamson the Kirkcaldy yarn dealer, "You will have seen that your prophecy as to Balgonie coming back on our hands has proved true. You will also have seen that yesterday we failed in getting any offer for the place when the price was fixed at £3,400, £100 less than will meet/

1. F.F.P. 20/3/1886.

2. F.F.P. 12/6/1886.

meet the bonds. I am at my wits end to know what to do and would be glad of your advice. Do you think that Swan Brothers are likely to get an arrangement carried out or will these mills too be in the market shortly?"⁽¹⁾

Swan Brothers were unable to continue and their works were eventually sold; J.G. Stuart was unable to find a sale for Balgonie at even £1,000.⁽²⁾

In September, that year, Clayaeres Mill at Dunfermline, the only surviving Dunfermline mill was closed.⁽³⁾

The immediate cause of the failures in 1886 was the high price of flax, coupled with the low price of yarn. But in earlier years firms had been able to survive difficult periods. Why was it that the decline of the Fife spinning trade in the last decades of the century was so absolute?

Competition was certainly a factor in the decline.

In 1883, Henderson the Factory Inspector wrote "There can be no question that the flax spinning trade has been harder hit by competition than any other branch of our textile industries. The importations of flax yarn from the continent, particularly from Belgium/

1. Stuart & Stuart, Cairns and Co., W.S., Edinburgh. Balgonie Works, Letter Book 23/6/1886. I am indebted to Mrs. Nicoll of St. Andrews who put me in touch with her cousin Mr. J.G.S. Cameron, W.S. whose great-great-grandfather founded the legal connection with Balgonie. As well as the firm's letter book, cash book and journal during its last couple of years Mr. Cameron has in his possession some of the books of the Balgonie Works Library, started by his great-grandfather Joseph Gordon Stuart in the 1840s.
2. Ibid 305.
3. F.F.P. 11/9/1886.

Belgium, have increased enormously of late years, and the market for flax goods is being constantly encroached upon by the manufacturers of Jute and Cotton."⁽¹⁾ Jute continually made headway against coarse flax and replaced it, for instance, in the backing for floorcloth in the 1870s, whilst a new dimension was added to the competition from cotton with the growth of very cheap Bombay cotton goods.⁽²⁾ The position of flax was not improved by its continued dependence on the vagaries of the weather. Thus in 1897/8 bad crops pushed up the price of flax yarn 25 to 30% and did the same in 1899/1900.⁽³⁾

The eclipse of the North of England flax spinning trade by the wool and cotton industries, coupled with the competition from cotton and jute in some of Fife's traditional products, along with the growth in Fife of fine linen products, reduced demand for the coarser dry spun yarns of Fife and increased that of the Irish wet spun mills. In many cases of business failure, the main creditors became Ulster flax spinners and merchants, indicating the growing dependence on Northern Ireland. Such was the dependence, that the Kirkcaldy Chamber of Commerce in 1903, voted against Irish Home Rule because of the disruption this would bring to Ulster Commerce, which was so closely connected with that of Fife.⁽⁴⁾ But competition, itself, does/

1. Henderson's report (1883) quoted in Groome's Gazetteer, 1885, vol. III p.81.
2. B.P.P. 1886, XXI Royal Commission on Depression in Trade & Industry, Minutes of Evidence p.498.
3. Dunfermline Almanac, 1900 p.7.
4. F.A. 22/4/1903.

does not cause business failure; it is the inability or unwillingness to meet the competition. In Dundee certainly, competition and protection were thought to have led to a loss of spirit. Businessmen felt that "The way in which we have had all our continental markets taken from us by prohibitive tariffs during the past seven or eight years has had the tendency to take away the spirit of enterprise from those connected with the trade in Dundee."⁽¹⁾

This lack of enterprise may have led to some natural decline of the industry. When Smith of Dysart, for instance, died in 1901, the Mill fell out of use.⁽²⁾ In several cases where a mill was burnt down, it was not rebuilt again. Young and Rintoul's mill was burnt down in 1863 as was Ireland's in Buchhaven. In 1898 there was a fire at Normand's mill Dysart and in 1901 at Linton's mill in Kirkealdy's Coal Wynd. Although Abbotshall Mill was rebuilt by David Yule in 1896 following its destruction by fire in 1895 this undoubtedly contributed to his subsequent failure.⁽³⁾

To a large extent, this failure of enterprise was brought on by an obsolescence of plant and personnel; whilst well managed mills with new machinery and sufficient capital were able to survive, "It was perfectly well known here", said Robert Lockhart, at a meeting in Kirkealdy "that the flax mills in Fife went to the wall, not on account of foreign competition, but because they employed antiquated methods, antiquated/

1. B.F.P. 1886 XXI op. cit. p.454.
2. F.F.P. 15/1/1910.
3. S.R.O. CS 318/43/333 Sequestration of David Yule 1897.

antiquated machinery and had great difficulty in many cases in securing hands."⁽¹⁾ There was a tendency in both the spinning and weaving branches for the industry to be dominated by old men and many families were long lived. Thus, in the Lockhart family, John Lockhart of N. Lockhart & Sons, Kirkcaldy, lived from 1818 to 1909. Ninian and Robert Lockhart of N. & N. Lockhart lived from 1800 to 1881 and 1822 to 1902, respectively. The ledgers of Robert Stocks and Co. suggest that old men held on tenaciously to their position, often keeping their sons out of a position of responsibility till late in life. Thus, Robert Stocks of Abden, who began business in 1805, did not bring his son into partnership with him till 1860. Of course, if he had married younger he might have been able to bring a son in earlier. The son, born in 1836, took his son into partnership only in 1896, two years before his death. An undue reverence for age, seems to have led to industrial atrophy, as in the case of the hitherto dynamic James Normand & Son of Dysart. In February 1881, the company took limited liability, issuing 4,500 shares valued nominally at £15. There was no attempt to widen the ownership of the company, which was vested firmly in the hands of the directors, W.J. Normand with 1,822 shares, P.H. Normand with 1,825 and R. Livingston with 848. Five other relatives held one share each. In June 1881, a call of £10 per share was made but the capital was never fully subscribed and in 1902 was formally reduced to £45,000. Over the years W.F. Normand and W. Livingston of Walkerton acquired considerable shareholdings but the former died in 1896/

1. F.A. 15/1/1910.

1896 and the latter in 1901. In 1903, P.H. Normand and R. Livingston resigned as directors and the business fell almost entirely into the hands of W.J. Normand who held 4,475 of the 4,500 shares. He was then aged over 70 and had been living in Edinburgh since 1885. When he died in 1914, the management of the company fell into the hands of James Normand who had been a stock raiser in the United States since shortly after the formation of the company. In 1922 this large company went into liquidation.⁽¹⁾ This firm seems a classic example of a firm, too closely managed by one man, whilst the more dynamic members of the family lost interest in textiles and left to pursue other careers.

In the case of Swan Brothers, old age was combined with poor management. P.D. Swan entered his father's firm of flax spinners, flax merchants and shippers in Kirkcaldy and Kinghorn in 1825. He was later joined by his brothers, the youngest of whom died in 1867, leaving Provost Swan to carry on the business. When the firm failed in 1886, the 'Fife Free Press' said "Provost Swan is now advanced in years, in fact beyond the period when he should be actively engaged in business."⁽²⁾ It may be that Swan was too involved in outside activities. Not only was he an active Provost of Kirkcaldy but chairman of the School Board, chairman of the Harbour Commission, Governor of the Philp Trust and a J.P., chairman of the Kirkcaldy Building and Heritable Security Co., Trustee of the Property Investment Society as well as President or Vice President of some 9 local societies. He certainly showed over generosity/

1. S.R.O. BT 2 1016 James Normand and Son Ltd., incorporated February 1881.

2. F.F.P. 12/6/1886.

generosity or lack of business judgement in some of his financial dealings. In 1848 Swan gave credit to the already insolvent John Inglis of Dairsie. Inglis said in his examination for bankruptcy, "coming home from Dundee on the coach I bought a parcel of goods from Mr. Swan of Kirkcaldy."⁽¹⁾ In 1860 Swan lost £200 which he ^{had} lent to James Birrell in the month of his bankruptcy.⁽²⁾ He was also hard hit by the failure of John Speedie, whose estate owed him over £3,000 in 1883.⁽³⁾

Although Swan may have kept the works going, rather than put his large labour force out of work, it would seem that the firm had been in difficulty for some years, for in 1879, the property had been assigned to the Commercial Bank in return for a cash credit of £40,000.⁽⁴⁾ Not only were the mills in Kirkcaldy and Kinghorn small and unintegrated and the machinery old fashioned, but there is a strong oral tradition in Kirkcaldy and Kinghorn of mismanagement in the company's affairs.

Another feature of obsolescence was the overvaluation and underutilisation of property. This was certainly the case at Balgonie Works. In July 1884, the buildings, the machinery, including 3,266 spinning spindles and raw materials, were valued at £13,730, in spite of the fact that the third flat and attic of the mill was standing empty.⁽⁵⁾ In October of that year, following the death of the proprietor/

1. S.R.O. CS 280/11/26 Sequestration of John Inglis, 1848.
2. S.R.O. CS 318/19/18 Sequestration of James Birrell, 1860.
3. S.R.O. CS 318/32/372 Sequestration of John Speedie, 1883.
4. S.R.O. Sasines, Kirkcaldy, B/41/3/18 Jan. 1879.
5. Balgonie Works, Letter Book op. cit. 165.

proprietor, the valuator, George Lord, put a price of £9,000 on the works.⁽¹⁾ In fact, in December they were sold for just £4,700.

J.G. Stuart wrote to Lord "Mr. Templeman has acquired the works. He has got a great bargain but my brother, the Professor was anxious to have the matter concluded and most averse to breaking up the mill."⁽²⁾

The most obsolete mills were those in Duraden where it was hard to attract labour to such an isolated site. The business of Alexander Watson and Son had begun to go badly from 1870 but the only surviving partner J.C. Watson did not finally fail till 1898 - his brother

Alexander had left the partnership because he believed the business could not support more than one - ⁽³⁾ George Lord valued the Blebo and Dura mills at £17,427: 6: 8d, but then added "taking into account the present condition of the flax, line and tow trade, the position and capabilities of the machinery and especially the situation of these works..... the whole should be exposed at an upset price of say £10,500."⁽⁴⁾

The business could not be sold and in April 1899 the mills and houses were rented by David Pirie, a merchant from Dundee and the moveable plant and machinery purchased for just £1,700.⁽⁵⁾

If obsolescence of mills and machinery prevented the Fife spinning trade from competing more effectively with other fabrics and other areas, a continued lack of capital precluded businessmen from modernising/

1. Ibid 186.
2. Ibid 212. J.G. Stuart to G.H. Lord, Dundee.
3. S.R.O. CS 318/45/328 Sequestration of J.C. Watson 1898.
4. Ibid
5. Ibid. To some extent the obsolescence of machinery may have been due to the almost total dependence on machinery from Northern Ireland and the North of England. No interconnection between manufacturing industry and machine making ever really developed in Fife.

modernising their plant. A desire to maintain close family control of businesses combined with the poor prospects of the Fife spinning trade prevented the formation of limited liability companies. Where such Companies were formed, they were, as in the case of James Normand and Sons, merely the old firm in a new guise. In other cases, the high nominal value of the shares precluded widespread ownership, and the economic prospects prevented the companies from raising sufficient funds. Ireland Ramsay and Co. for instance, purchased Abbotshall Mills, Kirkcaldy, from Walter Ireland and Co. in May 1876.⁽¹⁾ The issued capital was £20,000 in 200 shares of £100 each. Although 195 shares were taken up, calls never exceeded £50, thus only £9,500 of capital was raised. By 1879 the paid up capital had been reduced to £6,500. By August 1883 the capital had been increased to £8,000 in the hands of seven shareholders. But this was quite inadequate to run the business which failed in 1884; not only was the property, valued at £5,602, fully burdened but the Company owed the Bank of Scotland £10,540. The deficiency of assets to liabilities was £12,856, more than £4,000 over the company's capital.⁽²⁾

The Abbotshall Mills were purchased by David Yule who ran the business as a private firm but, when he failed, they were again bought by a limited company known as the Kirkcaldy Spinning Co. This time/

1. S.R.O. BT 2 673 Ireland Ramsay and Co, incorporated May 1876.

2. Ibid.

time a capital of £20,000 was divided into 14,000 preference shares and 6,000 ordinary shares. By mid 1898, just 5,181 preference shares had been taken up and 10/- paid on 2,702 ordinary shares. The maximum capital was £6,690, not enough to run a successful spinning mill and the property, which had been connected with the flax trade since 1792 finally closed down in 1902.⁽¹⁾

Both Alexander Don Watson and John Cobb Watson, sons of Alexander Watson had been associated with Ireland Ramsay and Co. and the sorry failure of these men and a third brother Henry Smyth Watson, well illustrate the problems faced by businessmen with little capital behind them. When Alexander Watson died in 1868, A.D. Watson got £1,000 from his father's estate and worked in partnership with his brother J.C. Watson till 1877. He then became manager of Ireland Ramsay and Co. and, at that firm's failure was himself declared bankrupt, having assets of £405 and liabilities of £19,355. At his examination Alexander said of his years at Duraden, that some were profitable but "By the time I left the firm the money with which I started and all the profits were swallowed up in expenditure."⁽²⁾ H.S. Watson, a younger brother had also been left £1,000 at his father's death but had not been made a partner in the business. In 1873 he therefore took out the £660 left in the business and with £500 borrowed from/

1. Ibid.

2. S.R.O. CS 31B/30/314. Sequestration of A.D. Watson 1884.

from his father in law, purchased Pitscottie Mills, further up the Duraden, from the sequestrated estate of James Annan . In 1877, Watson failed, his drawings being greater than the profits from the business.⁽¹⁾

The brothers had left the business because it could not sustain more than one partner, but by taking their money out, J.C. Watson the surviving partner, was unable to survive the years when modernisation was essential. Not only had Watson to spin on hire from 1870 but had to borrow £2,000 on a bond from his wife and sister. In 1898, he eventually succumbed with liabilities of £27,400.⁽²⁾ But, as we have seen with A.D. Watson and H.S. Watson lack of capital prevented the brothers, who left the partnership, from pursuing successful spinning careers elsewhere. H.S. Watson was discharged in 1878 and spent three years as a commission agent in Kirkcaldy. He then became manager of the Haugh Bleachfield. In 1884, he bought the field for £2,000 spread over five years, "I had no capital of my own when I commenced."⁽³⁾ But the decline of the spinning trade hit the bleachers too. Unable to get local yarn, he bought in goods from Fife, Leeds, Belfast and French spinners which he was forced to sell at a loss. So in 1896, he failed again. "The deficiency", he said "has arisen from the very depressed conditions of the bleaching trade during the last five or six/

1. S.R.O. CS 318/18/7 Sequestration of H.S. Watson 1877.
2. S.R.O. CS 318/45/325 Sequestration of J.C. Watson 1898.
3. S.R.O. CS 318/45/323 Sequestration of H.S. Watson 1896.

six years and from bad debts."⁽¹⁾

A similar lack of capital affected Alexander Davidson, who had been Provost Swan's partner at Swan Brothers' failure in 1886. Assisted by friends, a bank overdraft and a mortgage on his house at West Fergus Place, Kirkcaldy, he purchased Tyrie Bleachfield from Swans' trustees for £1,200 in 1886. By 1904 Davidson had failed, hit by price cutting, coupled with an increase in the price of coal and labour. He did not have the capital to keep the business up properly at a time of severe competition when, as he said at his examination, "New methods of business have come into operation."⁽²⁾

Lastly, it may be said that in an era of declining profitability other factors could weigh heavily on a business. Thus, drink was said to be the root of the failure of J. and W. Hendry of West Bridge Mills, Kirkcaldy, in 1917. Certainly, the failure of David Yule of Abbotshall Mills was due to a variety of reasons largely outside the day to day running of the business. At his examination he said that he had lost some £25,000 from the following causes:- ⁽³⁾

£10,600	Fire, September 1895.
1,500	Fire (raw materials)
2,000	Transactions in manilla hemp
2,000	Foreign consignments
2,000	Personal and household expenses
3,200/	

1. Ibid.
2. S.R.O. CS 318/50/73 Sequestration of Alexander Davidson, 1904.
3. S.R.O. CS 318/43/333 Sequestration of David Yule 1897.

£3,200	Stock Exchange transactions in shares of the Hamp Yarn and Cordage Co. and subsidiary companies.
1,000	Stock Exchange
2,500	Accommodation Bills
500	Preference

Yule failed because he had not insured his works properly, speculated rashly in raw materials and on the Stock Exchange, made losses in foreign trade and overpaid. It can be seen, therefore, that, taking the industry as a whole, increased competition at home and abroad made decline inevitable in an industry, where lack of profitability discouraged entrepreneurship and made it impossible for small, old established firms, often badly located, and with antiquated machinery and methods, to compete successfully.

To what extent was the industrys' decline hastened by businessmen taking their capital out of the industry and putting it elsewhere? Lenman and Donaldson have suggested that, having made their fortune in Dundee, businessmen had little other manufacturing industry to invest their money in, in Dundee and, therefore, invested heavily abroad, notably in the United States.⁽¹⁾ I have suggested that there was little surplus capital in Fife, especially in the spinning trade. However, firms such as James Normand and Sons of Dysart who combined spinning and weaving stood to make large profits in the period of the U.S. Civil War. It is significant therefore, that, when the head of the firm, James Normand of Blairhall and Whitehill died in 1874 leaving £91,102.11.8d only £10,463. 4/- of this was described as "Balance at credit in the firm of/

1. Lenman and Donaldson, Partners Incomes, Investment and Diversification in the Scottish Linen Area. Business History 1971, p.14.

of James Normand and Sons" the rest was stocks, shares and bonds. At home, he had money in English and Scottish Railway Companies, and manufacturing companies as well as £1,070 of Stock in the Scottish American Investment Trust but the major part of his wealth was in U.S. railways and bonds, both federal and state, and other foreign bonds. (1)

Robert Lockhart, a son of Ninian Lockhart, one of the principal manufacturers in Kirkcaldy, was a director of the Scottish and New Zealand Investment Co. and went out to New Zealand to examine the Company's affairs. He was also chairman of the Scottish Life Assurance Co. (2) James Shepherd, who was in business with Michael Nairn, before setting up as a linoleum manufacturer, was, for a long time, chairman of the Swan Land and Cattle Company, one of the largest in the American cattle trade. (3) Evidence suggests that, where finance was available, it may have been put abroad rather than into local industry but the evidence from the linoleum trade suggests that sufficient local capital was not available.

Certainly, some enterprise was lost to the linen trade by the movement of capital into floorcloth and later linoleum production. Thus Daniel Hendry, left the partnership of D. & T. Hendry, spinners at West Bridge/

1. G.R.O. CS 20/22/47. Settlement of James Normand, died 25/8/1874.
2. Piper o' Dundee, 22/11/1893.
3. F.P.P. 2/9/1906.

Bridge Mills to form the partnership of Hendry Whyte and Strachan in 1870. In 1872, the following memorial of the North British Floorcloth Co. appeared "Having noticed the constant extensions in the works of the floorcloth manufacturers of Kirkcaldy, some of the merchants of this prosperous town decided to float a limited Company for the manufacture of floorcloth."⁽¹⁾ A capital of £30,000 divided into 300 £100 shares was to be issued and the Company placed under the management of J.P. Aytoun, formerly owner of the Abbotshall Spinning Mills. The shares were taken up by 34 persons including 12 local manufacturers or merchants connected with the linen trade.⁽²⁾ In 1873, another Company, the Patent Floorcloth Company, was formed with a capital of £14,750.⁽³⁾ In 1878, the floorcloth business of Messrs. Shepherd and Beveridge became the Kirkcaldy Linoleum Company⁽⁴⁾ and in 1880, the manager of that Company, Edward Ostlere, and a shareholder John Barry, an Irish M.P. formed a Company called John Barry Ostlere and Company with a capital of £50,000.⁽⁵⁾ In 1888 that Company was reformed with a capital of £400,000.⁽⁶⁾ In 1899 it joined with Shepherd's Company to form Barry Ostlere and Shepherd, the main rival of Michael Nairn and Co, the closely controlled family business which had greatly benefitted by being first/

1. Nairn Williamson & Co. Ltd. Nairn papers, Memo of Incorporation of North British Floorcloth Co.
2. S.R.O. BT 2 462 The North British Floorcloth Co.Ltd. incorporated 1872
3. S.R.O. BT 2 517, The Patent Floorcloth Co.Ltd. incorporated 1873.
4. S.R.O. BT 2 821. The Kirkcaldy Linoleum Co.Ltd. incorporated 1878.
5. S.R.O. BT 2 999. John Barry Ostlere & Co. Ltd. incorporated 1880.
6. S.R.O. BT 2 1812 John Barry Ostlere & Co. Ltd. incorporated 1888.

first in the field. As early as 1864, Robert Nairn had written to Michael Nairn junior "This concern was never intended for any but those connected with our own family."⁽¹⁾

The salient features of the development of the Kirkcaldy linoleum trade as far as the finance of the linen trade is concerned are that, either Fife manufacturers did not have sufficient capital or were unwilling to invest it in the linoleum trade for the small early businesses were unsuccessful. The Patent Floor cloth Co. being sold to John Barry Ostlere and Co. in 1880, and the North British floor cloth Co. and Hendry Whyte and Strachan to the same firm in 1888. The small limited companies were too late, for by 1871 a collusive trading agreement had already been made between Michael Nairn & Co, Shepherd and Beveridge and Hendry Whyte & Strachan. A selling cartel was set up, agreement reached on discounts, payment of carriage only to be paid to the seaport, prices to be raised and "No reduction in price to take place or alteration to be made on this arrangement without consultation with all the parties to this agreement."⁽²⁾

That finance was not forthcoming can be seen in that, of the 12,500 preference shares in John Barry Ostlere and Co, taken up after 1888, only 930 went to Kirkcaldy Linen manufacturers. None of them were/

1. Nairn papers op. cit. Robert to Michael Nairn 16/7/1864.
2. Ibid.

were ordinary shareholders.⁽¹⁾ When another small venture was tried in 1894⁽²⁾ it too failed for lack of capital, only to be taken over by a somewhat larger Company, the Fife Linoleum Co. in 1904. Significantly, only one linen manufacturer, Robert, later Sir Robert Lockhart was closely connected with the Company and in the early thirties it was taken over by Michael Nairn and Co. for £75,000.⁽³⁾ Thus, whilst the Fife Linen men showed an early enthusiasm for the new floorcloth trade; just as they do not appear to have had the resources to modernise the spinning trade, so they were unable to invest in the floorcloth and linoleum trade on the scale required to compete with the two leading firms.

Although the spinning trade of Fife clearly declined in the last quarter of the nineteenth century, well managed firms, with new machinery and sufficient capital, willing to exploit new markets, were able to survive. In Kirkcaldy, there was the Bennoch works of N. & N. Lockhart; at Princeslaw there was John Fergus & Co. which had brought in new management some years before the death of John Fergus himself. Finally, at Leven there was the Boase Spinning Co. which by 1900 had become the largest spinning works in Fife, employing some 600 people, largely on government and railway contracts.⁽⁴⁾ At the death of Alexander/

1. S.R.O. BT 2 1812 op. cit.
2. BT 2 2814 The Fife Linoleum and Floorcloth Co. Ltd. incorporated 1894
3. BT 2 5734 The Fife Linoleum Co. incorporated 1904.
4. A.S. Cunningham, *Rambles in Scoonie and Wemyss*, p.77.

Alexander Boswall in 1867 the Hawkslaw Works at Leven was acquired by H. and R. Small who were joined by W.L. Boase of the Dundee merchant and banking family of that name. In 1871 the firm of Small and Boase bought the Rockwell Works in Dundee.⁽¹⁾ On the retirement of Robert Small and the death of Henry, W.L. Boase, the remaining partner, formed the Boase Spinning Co. in 1886 with a capital of £60,000, a significantly larger sum than the capital at the disposal of most of Fife's spinning firms. Although W.L. Boase owned 3,565 of the 4,500 shares which were subscribed for, his was an active business career. On the death of Thomas Crabb, the Riverbank Mill was included in the Hawkslaw complex and in 1892 the firm amalgamated with W.L. Boase and Co. of Dundee. At this point the nominal capital was raised to £100,000 and it is significant that nearly all this was taken up. At the end of 1898, the issued capital stood at £99,400 of which £73,000 was in the hands of W.L. Boase.⁽²⁾ Although the firm was also involved in jute and hemp manufacture, it shows clearly that success was possible; for notes written by Boase's son, Philip from the company's early minutes, show that a regular dividend was paid, the lowest being 8% in 1894, described as "A year of great difficulty". Not only was W.L. Boase the Company's principal shareholder but also the general manager. In 1890, his salary was/

1. South Mills (Flax) Limited, P. Boase, Typescript, Early History of the Boase Spinning Co. Ltd. I am indebted to James Rankin for sending me a copy of Mr. Boase's typescript. (South Mills is now part of Sidlaw Industries).
2. S.R.O. DF 2 154 The Boase Spinning Co, incorporated 1884, to take effect 1876.

was increased to £2,000 per annum "on account of his able management, and business of such magnitude." It is significant that, in that year, the Company spent £2,480 on boilers, spinning frames and buildings, bought 13 cottages for workers' houses at £1,205 paid a 10% dividend and was still able to put £860 to reserve.⁽¹⁾

Thus, by the turn of the century the majority of the small inefficient flax mills of Fife had closed. Manufacturers were beginning to feel the weight of foreign competition but were able to buy cheap, imported yarns and were still able to find good markets, especially for their finer products, in spite of growing world tariff barriers. The chapter will finish with an examination of the style of life associated with the linen trade of Fife in the closing decades of the Nineteenth century.

Unfortunately, there are no long runs of wage statistics for the Fife linen industry, so one year can not be compared accurately with another. The great majority of workers in the Fife linen trade were female, single and of lowland origin and were paid fortnightly. Thus, in a Prinlaws wage book, of 140 workers, only 7 had "Mac" surnames,⁽²⁾ whilst at Robert Stocks and Co. between 1887 and 1900 no more than 6 or 7 of the 100 to 120 female workers were married.⁽³⁾ In 1887 the firm employed/

1. E. Bouse op.cit.

2. Kirkcaldy Technical College, Fergus Papers, Wages Book 31/10/1878-16/9/1880.

3. Robert Stocks & Co. Wages Books 1887

employed 23 men in a workforce of 126, in 1894, 25 in a workforce of 140 and in 1900, 29 in a workforce of 172.⁽¹⁾ Another factor was the variation in wages paid. At Prinlaws in 1858, half timerson wet and dry spinning were paid 1/6d per week; the maximum wage for spinners was 5/8d per week whilst the best paid female job was reeling where the wage was from 6/2½ to 8/7d. However, mechanics could earn up to 19/-⁽²⁾ By 1879, the best paid mechanic at Prinlaws Works was getting 87/4d per fortnight.⁽³⁾ At Robert Stocks and Co. in 1887, the worst paid received 5/2d per fortnight, the best 27/3d. By 1900, the worst got 7/- the best 30/8d.⁽⁴⁾ Overall, the main conclusion must be that linen wages remained low throughout the period. In 1858, the average wage of 142 workers at one of the Prinlaws mills - comprising 129 women and 13 men - (excluding mechanics' wages which were apportioned through the total wage bill for all the mills) was just 4/10d per week.⁽⁵⁾ Membership of his two London clubs cost John Fergus rather more than the average yearly wage at the mills.⁽⁶⁾ By 1880 the average wage at Prinlaws had increased to 7/11d per week.⁽⁷⁾ Official figures confirm the continuance of low wages in the Lile Linen Trade, especially in flax spinning. Not only were wages in the Scottish industry lower in 1886 than/

1. Ibid.

2. Fergus papers, Loose wages sheets 2/9/1858 and 9/9/1858.

3. John Fergus & Co. Wages Book 31/10/1878 to 16/9/1880 op.cit.

4. Robert Stocks and Co. Wages Book, op.cit.

5. Fergus papers, loose wages sheets, 2/9/1858 and 9/9/1858 op.cit.

6. Fergus papers, John Fergus, Ledger, 1850 to 1852, ff 204-217. The City of London Club £6.6s. per annum; Reform Club £8.8.6d per annum.

7. John Fergus & Co. Wages Book op.cit.

than those in England, but wages were significantly lower in linen than in cotton, worsteds and woollens and especially low in small towns and rural areas. Taking towns of over 5,000 the wages of female spinners were 8/4d per week, of weavers 9/10d. In towns under 5,000 people, spinners were getting 7/8d per week and weavers 9/6d.⁽¹⁾ By 1906, women linen workers were still the worst paid textile workers. In Fife, the average wage of a full time woman spinner (over 18 years old) was 9/10d and of a full time weaver, attending two looms 12/2d. Taking the linen industry as a whole and comparing it with cotton the picture is striking.⁽²⁾

	<u>Average wage per week</u>			
	<u>Men.</u>		<u>Women</u>	
	<u>1886</u>	<u>1906</u>	<u>1886</u>	<u>1906</u>
Linen	19/9d	22/4d	8/11d	10/9d
Cotton	23/7d	28/10d	15/-	18/8d

Wages remained low in Fife, because the linen trade was a relatively declining trade, increasingly dominated by a female labour force which did not envisage a permanent career in the industry. Thus, on the rare occasions when strikes took place, the workers' returned on the management's terms. When the workers at Prinlaws walked out in August 1885, on a Thursday, they were back at work the next Monday at a reduced rate and wages did not return to the pre-strike/

1. C.5807 1889. Rates of Wages in the Textile Trades.
2. Cd 4545. Report by the Board of Trade on Earnings and Hours of labour in Textile Trades, 1906. The figures, in fact exaggerate the improvement in wages for the period 1885-1886 was one of depression in the textile industry generally.

pre-strike level till February 1889.⁽¹⁾ An examination of the marriage statistics of female factory workers in the parishes of Kinghorn and Leslie in the critical years from 1855 to 1875 show that the factory girls, who were largely daughters of labourers and millworkers did not marry till they were between 24 and 25,⁽²⁾ but wage statistics suggest that they gave up work as soon as they married. In the Kirkcaldy area generally, there was enough work for men for married women not to have to work. Thus Kirkcaldy wages were lower than those of Dundee and Dunfermline where there was less male employment. When there was a strike in Kirkcaldy in 1889, the workers were advised to stay out by the Rev. H. Williamson of the Dundee Mill and Factory Workers' Union, but after a week they returned to work, the Bennoch and West Bridge mills refusing to come up to the Dundee rate.⁽³⁾

Just as the millworkers did not see 10 years in a mill as a career, so Unions did not at first see women as a permanent part of the labour force. The failure, however, of the Kirkcaldy area to Unionise may be due largely to the paternalism of the small factory owners. For their part, they knew their employees well and believed that they had a responsibility to parents to look after their young workers, whilst the employees knew that promotion depended on their behaviour/

1. F.F.P. 6/2/1889.
2. County Buildings, Cupar, Registers of Births, Deaths and Marriages for Leslie and Kinghorn.
3. F.F.P. 16/2/1889.

behaviour at work. Further, in such a paternalist society, where wages were low, benefits to old or sick workers depended solely on the discretion of the employer. Thus, some firms such as N. & N. Lockhart remained unimpaired till World War II.⁽¹⁾

For several reasons, unions formed first in Dunfermline. The factory units were larger, employing more male workers; the lack of male employment made the women's position much more important, and the growing employment of women from the increasingly radical and growing mining communities brought a socialist element into the town. In 1891 3,000 attended a meeting in Dunfermline to hear John Burns support the miners' strike. In 1894, Tom Mann lectured in the town as did Keir Hardie in 1897.⁽²⁾ By 1896, there was both a Fabian Society and a Socialist Society in the town, the treasurer of the latter being J. Fotheringham, a linen dresser.⁽³⁾ Whilst a Kirkcaldy and District Powerloom Tenters Association was not formed till 1910, a similar society existed in Dunfermline before 1890. By 1896, there was a Yarn Dressers Association and the local press records an open air meeting of the Dunfermline and District Textile Workers Union in 1900. There was also a Trades Council in the town and a surviving balance sheet of 1895, shows that the President was John Weir the miner's Secretary whilst the treasurer was William McGregor.

1. I am indebted to Mr. Mackie of Kirkcaldy a Director of N. & N. Lockhart from the turn of the century for his views on workers attitudes to Unions.
2. Centenary of Dunfermline press, p.35.
3. Dunfermline Almanac, 1896 p.9.

a Linen Dresser.⁽¹⁾ Unions may not have increased Dunfermline wages; but by 1911, wages were said to be 4/- per week better in Dunfermline than Kirkcaldy and W. Adamson, West Fife's M.P. pointed out that, till then, Kirkcaldy workers were unorganised and employers had so far refused to meet workers' officials.⁽²⁾

In spite of the different circumstances in Kirkcaldy and Dunfermline, paternalist influence was strong in the latter town as well. Following the lead of Erskine Beveridge's St. Leonard's Works, strict disciplinary regulations were laid down at the powerloom works. Knitting, sewing or reading at work made workers liable to a fine of 6d. There was a 1d fine for every 5 minutes of absence in the morning or after meals. Although there was 14 days notice on either side, many offences made workers liable to instant dismissal. These included "Absence without leave for more than 2 hours, absent sick without immediately notifying management, allowing a stranger into the works without leave. Using improper language to anyone, interrupting the workers at their work; refusing to obey orders of managers and overseers; smoking tobacco, bringing liquor into or being intoxicated in the works."⁽³⁾

Again, following the lead of Beveridge in 1858, sick and funeral societies were set up to which the workers had to contribute, though indisposition from immoral or improper conduct could lead to dismissal/

1. Dunfermline Public Library, Dunfermline Trades Council, Report & Balance Sheet 1895/6. The rules of the Yarn Dressers Association, printed in 1895 is unfortunately missing from the library.
2. F.F.P. 14/10/1911.
3. Dunfermline Public Library; Regulations and Contract of Employment between R.E. Walker Reid and Co. and all persons working in Albany Powerloom Factory, Dunfermline, 1882.

dismissal from the society. Fines levied for misbehaviour at work were added to the sick fund. The paternalist nature of the schemes is seen by the need for the proprietor to sanction the appointment of the society's treasurer. Beveridge divided his workers into 3 groups, men, women and young persons. Alim¹ent was 6/- per week for men for 13 weeks 4/- for women and 2/- for young persons, then it was halved. "After 26 weeks, alim¹ent ceases and employees not again admitted to the sick roll till after six weeks' work." (1)

Although sick and funeral societies had taken a severe blow in the years of the handloom weaver's decline and had only partially been replaced by paternalist societies set up by the factory masters, some old societies continued, such as the Woodhead Street Funeral Society, founded in Dunfermline in 1821. Study of the society's minute book from 1866 to 1900, shows that the great majority of members were linen workers; at first handloom weavers, but increasingly workers in powerloom factories, often themselves sons or daughters of handloom weavers. On average, members joined in their thirties, with a life expectancy of thirty to forty years. The society paid for the funerals of members, their wives, children and unmarried adult daughters. (2) There were also yearly sick societies and, in Dunfermline, a special society for women, the Single Females, Sick and funeral/

1. Dunfermline Public Library, Rules of the H Leonards Powerloom Factory Sick and Funeral Society.
2. Dunfermline Public Library, Woodhead Street Funeral Society, Account Book.

Funeral Yearly Society.⁽¹⁾ Elsewhere in Fife the Leslie and Prinlaws Funeral Society had a large membership with 2,974 on the roll in 1856 and 3,214 in 1886.⁽²⁾ In Kirkcaldy, there were some 14 friendly Societies by 1883, including the "Sinclairtown Factory Male and Female Sick and Funeral Permanent Society."⁽³⁾

It was, however, only in the seventies and eighties that National Societies began to form branches in Fife, bringing back some of the important functions of the old local Societies. In Dunfermline and other linen towns, the majority of members of the societies were from the linen trade, nearly half being powerloom tenters. Thus in 1876 the Ancient Order of Forresters, founded in Dunfermline the Court King Robert the Bruce, which provided members with life insurance, sickness payment, medical attendance, temporary relief and assistance to members travelling to seek work. Membership increased from 130 in 1884 to 298, average age 32, in 1900.⁽⁴⁾ The society had regular district and delegate meetings, annual demonstrations and an annual soiree (with a double dance ticket for 1/6d). The minute of 1888 shows the colour such societies brought to the workers' lives "Following a soiree run by the Court a profit of £3. 1. 11d was made with which it was decided to help towards procuring a Robin Hood costume."⁽⁵⁾ The drawback to all these societies was that one had to be healthy to join them./

1. Dunfermline Public Library, Rules of the Sick and Funeral yearly Society, 1883.
2. F.H. 3/4/1856; F.F.P. 10/7/1886.
3. Kirkcaldy Trades Directory, 1882-3.
4. Dunfermline Public Library, Annual Reports of the Court King Robert the Bruce Ancient Order of Forresters, 1884 and 1900.
5. Minute Book, A.O.F. 14/3/1888. I am indebted to Mr. Simpson, the Court's Secretary at Dunfermline for allowing me to consult the Society's Minute and Account books.

them. The rules of the Forresters stated "No person shall be admitted a member of this court if he is of unsound health or if he is a bad character or leads an idle or dissolute life."⁽¹⁾

What then was the general condition of those in the linen industry? A distinction must be made between work in the declining flax spinning trade and in the purpose built weaving factories built in the sixties and seventies. E.H. Osborn in his report on mill and factory conditions in the linen trade, still found, in 1893, girls suffering in wet spinning mills. In Fife, the main problem was the lack of extractors in dusty tow preparing rooms. Dr. Sneddon of Cupar in his evidence said, "I have not the slightest doubt of the ill effects of the dusty processes in flax mills in inducing and encouraging diseases of the respiratory system, particularly phthisis."⁽²⁾ Old people remember the sight of the mill workers, leaving the flax mills, covered in dust, hence the name "Mill pud", (pud = rabbits tail in Scottish) for the factory girls. Workers were brought soup in the afternoon by their children after school for, only by working through their meal hour were the workers able to "make a pay."⁽³⁾

The conditions in weaving factories were in strong contrast to those found elsewhere. "It is impossible to go into a Scotch Linen/

1. Dunfermline Public Library, Rules of the Court King Robert the Bruce A.O.F. 1877.
2. B.P.F. 1893-4, XVII, Report by E.H. Osborn on the conditions of work in flax Mills and Linen factories in the U.K. p.554.
3. Oral memory of Mr. Forrester, retired manager of the Kirkcaldy Savings Bank, who was brought up in a linen worker's family at the beginning of the century.

linen factory in Dunfermline, Kirkcaldy or Forfar, and not be struck by the contrast to weaving sheds in other parts of the Kingdom. They are spacious and lofty, and the machinery has ample room.... they are also scrupulously clean; in one case I was told the floor is swept three times in the day and as a natural corollary, the weavers are tidier and more comfortably dressed."⁽¹⁾ The "Glasgow Herald" commented on the high quality of the Fife linen workers "The linen workers of Dunfermline and Kirkcaldy are drawn from the best class in the community They have distinct aspirations towards culture, many of them are active in religious and philanthropic works."⁽²⁾

As the century progressed, working people had more time for leisure and amusement. The annual works holiday, begun in the 1850s, continued an important annual event. Railway excursions were also popular, as were annual occasions such as the Links Market in Kirkcaldy, whilst the shortening of hours on a Saturday gave more opportunity for leisure activities. There was a growth in gardening societies. Normands of Dysart, for instance, gave prizes for the best kept worker's gardens, whilst at Dunfermline, the president, secretary and treasurer of the "Southern District Amateur Horticultural Society" were all linen workers.⁽³⁾ In sport, 1883 was/

1. B.P.P. 1893-4, XVII, op.cit. p.551.
2. Glasgow Herald, 18/8/1893.
3. Dunfermline Directory, 1890.

was the year of the formation of Raith Rovers, whilst on a local level there were such teams as Prinlaws Rangers Football Club formed before 1886. Workers' housing also improved. The Fife Advertiser commented of Kirkealdy in 1895, "The social well being of the people continues to improve in a very remarkable way.... The fine rows of pretty, commodious and healthful cottages and gardens that are fast extending over the fields to the north side of the town show that the conditions of life are being gradually improved."⁽¹⁾

There is, however, no room for complacency, sanitary and housing conditions remained poor, reflecting the low wages paid in the linen industry. The problems were particularly bad in Dunfermline. J. H. Whitehouse wrote of the town, "In the poorer quarters, the sanitary arrangements are defective, the tenements are frequently squalid, and badly lighted, dirty courts and alleys abound, and, in a word, there are reproduced in Dunfermline in miniature all the worst features of the slums, say of Manchester or London or Edinburgh."⁽²⁾ As in Dundee, the problems of working mothers with children could be serious as was dramatised by the Rev. Walker in 1904 "There was at that very time a house in Dunfermline which was not fit to stable a beast in, and the house was occupied by a poor old woman who made her livelihood by keeping the babies of women who had to/

1. F.A. 28/12/1895.

2. J.H. Whitehouse, Problems of a Scottish Provincial Town p.27.

to work in the factories."⁽¹⁾ Nor were conditions necessarily better in Kirkcaldy where it was reported in 1907, "It was never imagined that there were hundreds of houses in Kirkcaldy where the barest decencies of life were quite impossible and where the seeds of disease are constantly being sown."⁽²⁾

Overall, conditions of housing and health continued poor. The first report of the Medical Schools Inspector, in 1910, found that over half the children had something wrong with them. Diet too, was deficient. In Kirkcaldy 90% of the children ate bread or bread and tea for breakfast "Porridge was almost unknown". Dinner, in many cases, was a repetition of breakfast and the inspector found that the older children especially the girls, lived almost entirely on tea, usually made "in such a way that its poisonous properties are fully brought out". Such conditions were general in the town and neither worse nor better in the areas where most of the linen workers lived. The worst conditions were found, however, in miners' children.⁽³⁾

Turning to the employers, apart from families, such as that of Erskine Beveridge and the Normands and the principal linoleum manufacturers, who were able to live in some style, the majority of linen manufacturers and spinners were unostentatious in their style of life. The significant feature in manufacturers' housing was the movement out/

1. Dunfermline Press, 31/12/1904.
2. F.A. 11/5/1907.
3. First Report of the Medical Schools Inspector for Fife, 1910, quoted in F.A. 17/12/1910.

out of the town centres in the sixties and seventies with the building of solid villas in new residential districts such as Fergus Place or Loughborough Road, in Kirkealdy, and Comely Park, in Dunfermline; the building being financed by the profits of the Civil War period. Thus, in 1868 the 'Dunfermline Almanac' commented "The West end of Comely Park place has been considerably beautified by the erection of two very handsome villas."⁽¹⁾ A list of the inhabitants of the Place in 1909 shows how the manufacturers were concentrated in particular areas and the type of neighbours they had:⁽²⁾ (See Maps 4-7)

Adams, James, retired
 Allister, Charles D. Manufacturer
 Critchley Rev. Leopold. Minister
 Dick, James, Grocer
 Fraser, Alexander, Merchant
 Hetherington, Robert. Salesman
 Imrie, Rev. David. Minister
 Mathewson George, Manufacturer
 Morrison. Mrs. E.
 Reid, William, Manufacturer
 Robertson William, Manufacturer
 Robertson, Robert Hay, Manufacturer
 Tuke Allan, Doctor
 Walker H. A. Manufacturer
 Walker, Miss J.
 Manufacturers/

1. Dunfermline Almanac, 1868 p.3.
2. Dunfermline Directory, 1909.

- Map 4. Shows the development of the town of Kirkcaldy and its suburbs along the line of the High Street. Industrial, Commercial and Residential property are all in close proximity. The flax spinning mills are as follows (1) Coal Wynd Mill, A.G. Malcolm; (2) Coal Wynd, New Mill and Old Mill, Swan Brothers; (3) Park Mill, Swan Brothers; (4) Bute Wynd Mill, Archibald McDonald; (5) Baillie Hendry's Mill, Alexander Gibb; (6) Newtown Mills, James Aytoun; (7) West Bridge Mill, D. & T. Hendry.
- Map 5 Shows the area of vacant ground between Pathhead and Dysart later taken up for manufacturer's villas. Normand's early powerloom factory is in the centre of Dysart, whilst Nairn's floorcloth factory can be seen in Pathhead.
- Map 6 Shows the development of Loughborough Road as a residential area with large detached villas. The shaded building is the Victoria Linen Works of Peter Greig and Co.
- Map 7 Shows the development of the Comely Park area of Dunfermline. This treelined area of manufacturer's houses is immediately adjacent to parkland to the East; close to the railway station and within easy reach, though separated from, the factory area of the town, to the North and South.

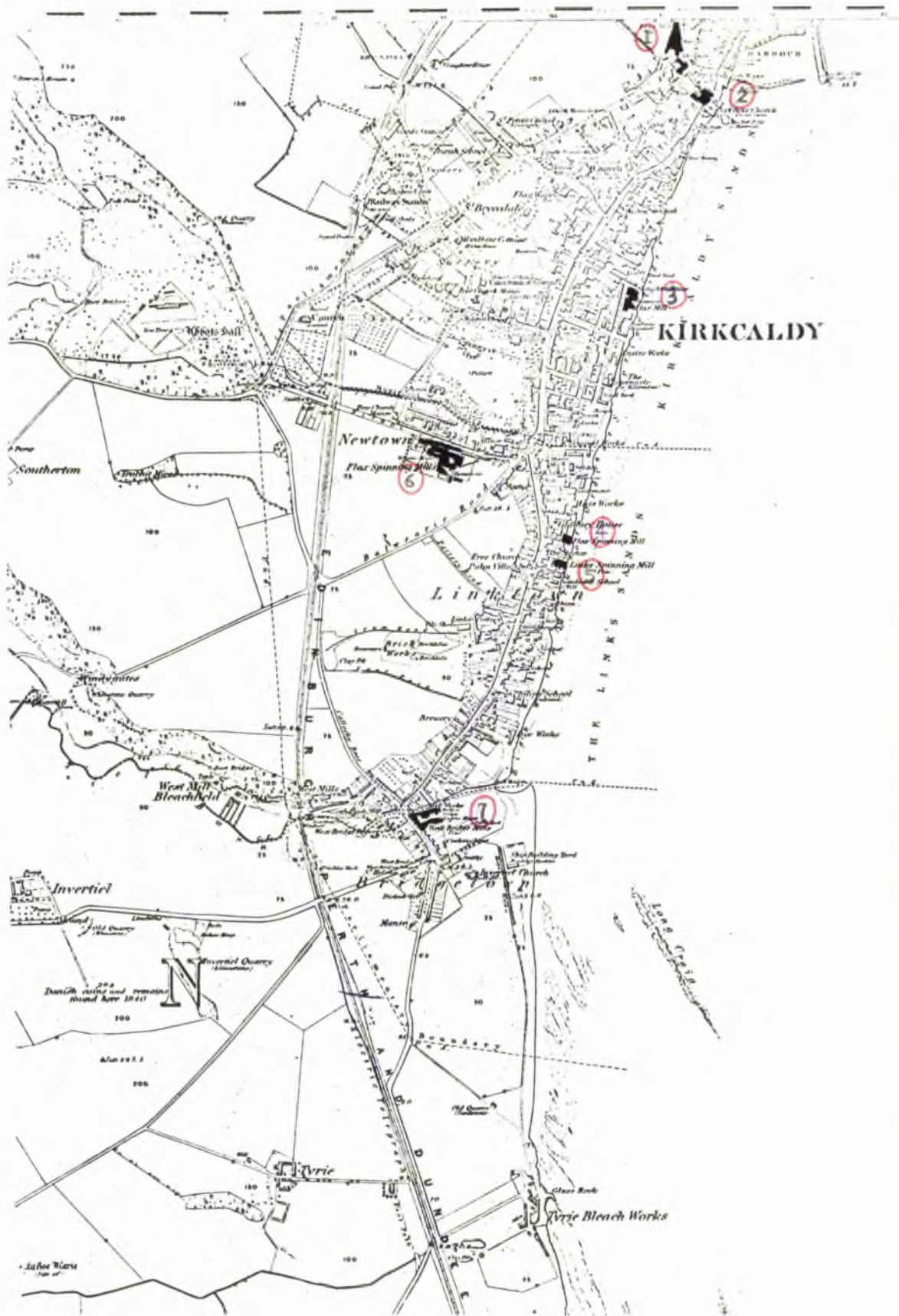


Figure 5

6" O.S. Fife & Kinross sh.32. 1856.

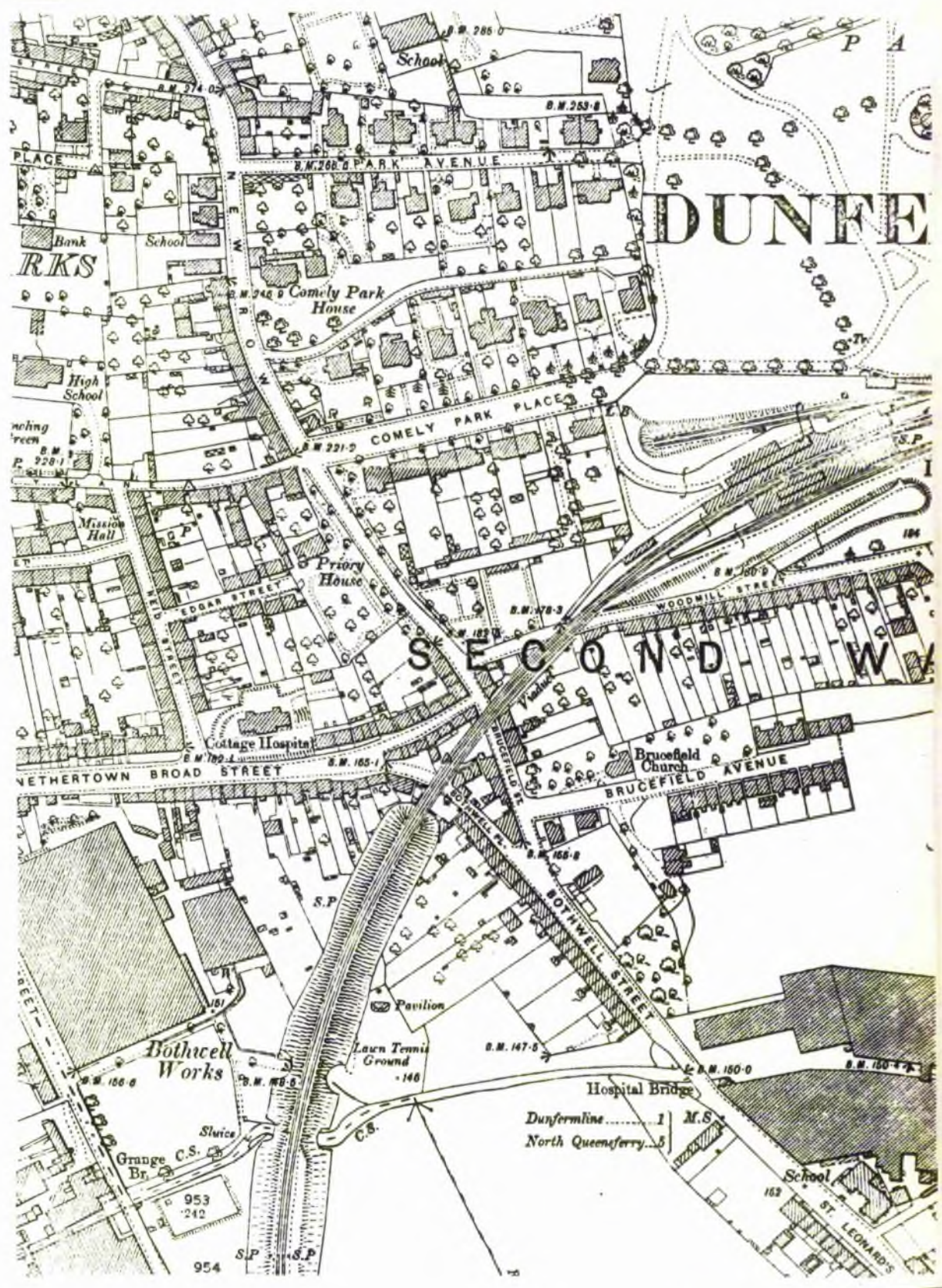


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This is a detailed street map of a residential area in London. The map shows a network of streets including Viewforth Street, Fife Arms (P.H.), School, Aitken Street, and others. Various buildings and landmarks are labeled, such as The Laurels, Ravensheugh, St. Ives, Anchor, Myrae Villa, Eastbank, Fern Bank, Fife Bank, Viewforth Cottage, U.P. Church, and Sparthorne Villa. The map also includes numerous house numbers and street names, providing a comprehensive view of the area's layout and infrastructure.

Figure 7

25" O.S. Fife sh. XXXIX 5. 1896.



Manufacturers further cut themselves off from the rest of the population by becoming closely associated with the Free Church. This was especially so in Kirkcaldy, where the land for St. Brycedale was given to the congregation by Provost Swan "in pursuance of a long cherished intention on my part and in the hope that God will bless this undertaking for the furtherance of his own glory, and the welfare of Kirkcaldy."⁽¹⁾

In other ways too, the manufacturers were differentiated from the masses. Increasingly, they sent their children away to school, either to Madras College at St. Andrews or to schools in Edinburgh,⁽²⁾ in the case of the Normands, to Fettes.⁽³⁾ They also opened accounts with stores in Edinburgh and Glasgow and bought locally on credit. R.S. Drysdale, for instance, in 1877, had credit at six Edinburgh shops, including James Allan, bootmakers in Princess Street.⁽⁴⁾

Whilst the working population began to watch more sport towards the end of the century, the manufacturers activity was more participatory. R.C. Lockhart was a keen sportsman, playing rugby and tennis and, curling. He also went on cycling holidays at home and on the continent with his wife.⁽⁵⁾ James Beveridge, of Kinross was a member of the bowling club and a member of the Loch Leven Angling Association;⁽⁶⁾ whilst some were golfers. When Alan Stuart of Balgonie/

1. S.R.O. Sasines, Kirkcaldy, B 41/3/17 p.210 31/12/1877.

2. Dunfermline Public Library, typescript John Robertson Reminiscences p.2.

James Stuart, Reminiscences p.124.

3. I am indebted to Mr. Normand of Edinburgh for information on the family.

4. S.R.O. CS 318/24/127 Sequestration of R.S.Drysdale, Dunfermline 1877

5. F.F.P. 6/6/1903.

6. Beveridge papers, miscellaneous vouchers.

Balgonie works died, his clubs could not be found and his brother wrote to Tom Morris at St. Andrews "Are my late brother's clubs with you or at the clubhouse?"⁽¹⁾ However, though the manufacturers, to some extent, divorced themselves from the mass of the population, they kept in very close contact with the towns they belonged to, many serving on the town councils and on the local school and parochial boards. In Kirkcaldy, in particular, Manufacturing families such as the Stocks and Lockhart families were closely involved in the management of the town. They also maintained the radical tradition in the town, R.C. Lockhart playing an important part in the Liberal party at local and Scottish level.⁽²⁾ Perhaps the linen manufacturers could not afford to live ostentatiously. The reply made by J.G. Stuart, when his brother in Australia asked the brothers at home for money, may sum up their situation "We are not a monied lot."⁽³⁾

Linen manufacturing in Fife continued into the twentieth century, but there is little to remind us of the sad history of the decline of the spinning trade, particularly on the River Leven apart from the river's continuing pollution. In 1805 the 'Edinburgh Advertiser' described Prinlaws as "upon the whole one of the most delightful situations in the Kingdom for an extensive manufacturing establishment as well as a delightful family residence.... coals in abundance/

1. Balgonie Works, Letter Book, op.cit. J.G. Stuart to Tom Morris 21/4/1886.
2. 'Dundee Advertiser', 30/6/1903.
3. Balgonie Works, Letter Book op.cit. J.G. Stuart to Charles Stuart 12/4/1894.

abundance are within a distance of a mile. The Leven abounds with fish and the country around with a variety of game."⁽¹⁾ At first, landowners had given land on long leases but they soon felt the effects of pollution and began to make stipulations as to the type of trade which could be carried on. Thus, in his lease of 1826, Robert Kirk was not to occupy mills in such a way as to make a nuisance to the adjoining subjects. His mill was not to be used as a power mill, distillery, sugar work or bleachfield.⁽²⁾ But here, as elsewhere, the damage had already been done. In spite of official warning, the streams of Fife had long been polluted by steeping lint in them. The Minister of Kinglassie wrote in the O.S.A. "The streams would abound with excellent trout were the people restrained from watering their flax in them."⁽³⁾ The owners of the Cupar tanworks revealed the general attitude when the town accused them of polluting the Eden in 1806 "The proprietors have good authority for saying that what is done by them at their works in the water of Eden is done by every person or company in any town in Scotland that's so situate with a river."⁽⁴⁾ There was little hope for the Leven. In 1833 it was complained that fish were **dying** in the river from pollution.⁽⁵⁾ By 1844 the river was almost useless for fishing.⁽⁶⁾ This is hardly surprising, for, seeing their economic interests above all else, the River Leven proprietors and occupiers at a meeting with the Earl/

1. Edinburgh Advertiser 9/7/1805.
2. S.R.O. CS 318/17/177. Sequestration of L. Kirk. 1835.
3. O.S.A. Kinglassie vol IV p.501.
4. S.R.O. Leven and Melville papers GD 26/V 716/2.
5. F.H. 25/7/1833.
6. F.H. 29/8/1844.

Earl of Rothes in the chair, asked Mr. Fergus, the M.P. to petition Parliament against the Bill to improve the Salmon fisheries in Scotland. (1)

Pollution in the Leven got steadily worse and, because the Leven Trustees had no authority to act on the matter, they would not commit themselves. When the Wemyss Estate found that it could not sell the Kirkland Works for a paper mill, owing to the pollution in the river, Mr. Wemyss suggested to a meeting of the River Leven Trustees that joint action be taken to pipe the pollution out to sea. "The meeting on discussing the matter resolved to take no action whatever in connection with such a scheme." (2) In 1900, the County Medical Officer summed up the position thus "A review of the progress that has been made to purify the polluted streams in Fife during the past ten years is not a brilliant record." (3) The linen industry, which had begun the pollution of the river and had attracted the equally polluting paper industry, had by 1900, with the exception of Prinlaws Works, disappeared, but it insured that in its decline, it would make further development on the river impossible.

Today the spinning trade, the development of which was focused along the River Leven is but a memory, the mills in ruins or taken over/

1. F.H. 10/3/1836.
2. River Leven Trustees, Sederunt Book, 1897-1923.
3. Dunfermline Public Library, County of Fife, 10th Annual Report of the Health and Sanitary Conditions of the County and Districts.

over for other uses. Elsewhere in Fife, spinning continues in Leven and Kirkcaldy and there are still linen factories in Dunfermline, Kirkcaldy, Falkland and Tayport and East Wemyss, but each year the trade declines, a last vestige remaining of the trade which dominated Fife in the Eighteenth and Nineteenth centuries.

CONCLUSION

At the beginning of the Eighteenth century, it was realised that the Scottish textile industry could not compete directly with England's wool trade and must make use of the new markets afforded by the Union by concentrating on the production of linen. It became the fashion to promote the trade and Fife, with its long established domestic Linen industry, was the scene of industrial development.

The most important source of encouragement was the Board of Trustees who formed a focus for development in the trade. Although the Board did much to improve the quantity and quality of goods produced, it was always hampered by lack of funds. The Board was most successful in the provision of funds for small schemes and in the field of design. It is a measure of the Board's success that an industry was created which felt secure enough to abandon the Board's guiding hand.

One of the Board's functions was to give premiums to bleach-fields, and a number of manufacturing and bleaching capitalists emerged, who were able to exploit the textile developments of the late Eighteenth century and establish waterpowered spinning mills at Kinghorn and, principally, upon the Rivers Eden and Leven. On the latter river, the landowners had long exploited their water resources and there was much discussion as to the merits of textile production and the exploitation of reserves of coal and iron. In many cases flax spinning mills were established on favourable leases.

Many of the early entrepreneurs originated from outside Fife, suggesting a lack of capital in the county. There was too, much/

much difficulty in raising sufficient capital. From the outset the industry was under-capitalised and over-burdened, chronically unable to weather the depths of subsequent depressions. As pioneers, the entrepreneurs faced unforeseen technical and managerial problems, which added to the failure rate. Of the early entrepreneurs, only the long-established manufacturer, Walter Fergus, who did not invest too heavily at the start and had sufficient capital resources, was able to consolidate himself in the trade.

The end of the Eighteenth century was, however, a period of progress in Fife; a period of rising wages and expectations. We see the growth of regional centres, Dunfermline, Kirkcaldy and Dundee (which influenced North Fife). In Dunfermline, the Damask industry began to grow, whilst at Kirkcaldy, competition from the cotton trade led to a decline in the production of Checks and a general coarsening of her output. Dunfermline goods began to find a growing market in North America, whilst much of Kirkcaldy's output went to London. A feature of the period was the growth of a number of large, capitalised businesses such as that of John Fergus and Sons of Kirkcaldy.

In the period down to the middle of the Nineteenth century there was a general stagnation in the Fife linen trade as this under-capitalised industry failed to compete, not only with the cotton trade of Lancashire but the wet spinning trade of Ulster. The sederunt books of bankrupts during the period show that there was much inefficiency in the industry. Many small firms closed; flax spinning failed to develop significantly in Dunfermline, and much of the Kirkcaldy and Kinghorn trade was taken over by the firm of Swan Brothers. It is against this background that the work of James Stuart, the/

the Factory Inspector, is examined and it is seen that, as an ardent supporter of the virtues of factory life, he was unwilling to prosecute small firms for fear of putting people out of work and exaggerated the benefits of such show-piece mills as those at Prinlaws. In this period too, we see the decline of handloom weavers. The scattered nature of the workforce, the number of female workers and the competition from cotton, led to low wages and underemployment. Conditions were particularly bad in depression years such as 1842. The most significant factor in the weavers' decline was the vacuum created in society by the emigration of the most spirited members of the weaver communities and the closure of many Friendly and Cooperative Societies, which had not the funds to function.

The high price of flax in the Crimean War, the threat of war in America and a number of severe bankruptcies, ill prepared Fife for the short-lived boom of the American Civil War period, which saw the establishment of powerloom factories in nearly every town and village in the manufacturing districts of Fife. Thereafter, the volume of Fife's output increased to meet the growing demands of railway and steamship companies but, in the face of competition from Ulster and abroad, lacking enterprise and using outdated plant and managerial techniques, many spinning firms closed. The failure of these small, old firms is highlighted by the success of a small number of progressive new firms.

Thus, taking the industry as a whole, whilst factory conditions greatly improved, especially after the Ten Hours Act of 1847 and the building of modern powerloom factories, and wages, particularly in weaving, had begun to increase by the end of the century/

century, the Linen trade of Fife was not a trade where great fortunes were made. The story, with few exceptions is that of a chronically under-capitalised industry, gradually declining as, with each succeeding depression, fewer firms were able to face the future.

It is melancholy to reflect that so much of the evidence for the techniques of production, for business methods and the output of spinners and weavers alike, is to be obtained from the numerous bankruptcy processes amongst the papers of the Court of Session.

APPENDIX 1

Fife Linen Products at the time of the New Statistical Account

<u>Parish</u>	<u>Page Ref.</u>	<u>Products</u>
Abbotshall	157	Staple; Bedticks, recent addition; the coarse half-white linen, Dowlas.
Balmerino	588	Dowlas and Osnaburg
Carnock	710	Table Linen, coarse covers (made from cotton and worsted)
Ceres	527	Sheeting and Dowlas.
Creich	651	Dowlas and Osnaburg, Brown and White Plain Sheetings.
Cults	572	Dowlas (webs 140 yds by 30 inches requiring 35 spindles of yarn).
Dairsie	774	Dowlas (John Inglis has 35 hands)
Falkland	936	6 manufacturers of Window Blind in Fife.
Kettle	108	9/10 th Dowlas 1/10 th Window Blind.
Kennoway	385	Dowlas sheeting 7 ⁰⁰ - 10 ⁰⁰ , Tweels, a few Diapers and Darlingsons.
Kilconquhar	322	Dowlas, Sheetings and Checks.
Kingsbarns	98	Osnaburg and Dowlas.
Kirkoaldy	753	Ticks, Drills, Dowlas, Sheetings, Ducks, Sailleloth.
Leslie	119	Most of the work plain Linen and cotton Checks - supplied from Glasgow.
Leuchars	226	Osnaburgs, Dowlas and Silesia.
Markinch	674	From about 1804, Dowlas sheeting and towellings from bleached mill spun yarn.
Newburgh	75	Dowlas.
Strathmiglo	527	Diapers, Damask, Dowlas, Checks.
Torryburn	735	Some Damask, Cottons for the Glasgow Market.
Wemyss	753	Kirkland Works - yarns for Canvas, Sheetting Dowlas, Ducks, sackings.
	597	Parish of Wemyss - Ducks, Dowlas, Sheetting.

APPENDIX 2

An account of the quantity of undressed flax and raw linen yarn imported
into Scotland 1765 to 1800

Importation of Yarn in lbs -

1765	72,799
1766	86864
1767	110,458
1768	122,884
1769	241,491
1770	130,230
1771	144,320
1772	228,618
1773	157,087
1774	110,010
1775	128,045
1776	117,269
1777	368490
1778	237,695
1779	283,839
1780	157,182
1781	336,673
1782	327,346
1783	243,368
1784	321,692
1785.	321,697
1786	458,183
1787	562,302
1788	781,959
1789	735,950
1790	1,332,878
1791	1,852,415
1792	1,295,581
1793	1,001,483
1794	1,205,569
1795	942,235
1796	1,329,697
1797	1,086,497
1798	984,165
1799	1,698,643
1800	1,059,765

APPENDIX 3

Robert Stocks and Co. Manufacturing Book

	<u>Wages Given Out</u>						
	<u>1807</u>	<u>1808</u>	<u>1809</u>	<u>1810</u>	<u>1811</u>	<u>1812</u>	<u>1813</u>
January	9	9	14	24	40	51	122
February	4	23	18	30	35	34	153
March	9	12	31	28	32	93	159
April	16	13	34	17	34	110	158
May	28	14	31	32	32	120	120
June	20	11	21	27	31	129	-
July	17	10	8	28	29	134	-
August	11	12	12	16	53	141	-
September	13	9	8	17	21	142	-
October	12	14	17	29	33	137	-
November	13	23	29	39	41	93	-
December	22	18	35	41	41	81	-
Total P.A.	<u>183</u>	<u>168</u>	<u>258</u>	<u>328</u>	<u>422</u>	<u>1265</u>	<u>712</u>

The growth in Stock's output, to some extent distorts the variations in wages during the year. On examination, however, ~~of~~ the Cash Book, January 1811 to July 1833 shows the cyclical pattern of wages within the year. There were universally low wages in September. Highest wages were paid in December, and were lower in January than December.

APPENDIX 4

Sequestration James Troup & Son, Strathmiglo 1859 CS 318/4/31D.

Goods in Grocery Shop

19½ Bottles Castor Oil	£-. 9. 1
232 Boxes Matches	-. 9. 3
1 package "	-. 3. -
25½ lbs Starch	-.17.1½
134½ " Potatoes	-.17. 4
6½ lbs Mixtures	-. 5. 4
14 ox. Sugar Candy	-. 1. -
180 Oranges	-. 7. 3
13 lbs. 15 oz. Nuts	-. 9. 3
12 lbs Walnuts 8/-, 1 lbs 12 oz. raisins 6/-	-.14. -
10 ox. Black Smuff, 9 lbs. 11 oz. Brown do	1.10. 2
10½ lbs. Coffee, 15/8d, 1½ cwt. Blue peas 21/-.	1.16. 8
34 lbs. Split peas 3/6d, 5 lbs.7 oz. Currants 4/7	-. 8. 1
10 oz. Cough Lozenges 5d, 10 oz. Jamaica pepper 5d	-. -.10
14½ lbs. Black pepper 11/3, 27½ lbs Barley Sugar £1.0.7	1.11.10
3½lbs. Tartaric Acid 3/10d, 54 lbs. Confections £1.19.9d.	2. 3. 7
44 lbs. Rice 14/9d, 1 lb.4oz. Ginger Sweeties 9½	-.15. 6½
4 lbs. 3 oz. Tapioca 1/6d, 5½ lbs Cream of Tartar 10/-	-.11. 6
12 oz. Senna 1/8d, 2½lbs. Salts 1/6d, 6½lbs Hemp Seed 1/6d	-. 4. 8
26½ lbs. Canary Seed 6/6d, 16 lbs Candles 10/5½	-.16.11½
10 lbs. Thumb Blue 6/8, 237 Holdfasts 1/4	-. 8. -
2 small Brackets 8/-, 2 Back joints 2/3	-.10. 3
13 middle joints 5/5, 22 foot " 11/-	-.16. 5
1 Universal do 1/3, 9 L.Cocks 4/1½	-. 5. 4½
1-½ ins. Coupling 2½d, 9½ ins. Coupling 2/9	-. 2.11½
3-3/8 " Stock Cook 2/1½, 1 old bracket 1/-	-. 3.1½
43 lbs. Tin Tube £2.17.3, 8 lbs. Brass do 12/-	3. 9. 3
70 gas burners 2/11, 6 Orange peel Cakes 1/6	-. 4. 5
2 lbs. 12 oz. Black Sugar 1/10, 10 lbs 4 oz. Slate pencil 4/-	-. 5.10
61 pkges washing powder 4/-, 18 do. Black Lead 1/1	-. 5. 1
31 pafs books 2/-, 600 White Envelopes 4/6d, 80 Yankee do 3d	-. 6. 9
720 Sheets Writing paper 7/6, Gingerbread 6d	-. 8. -
6½ lbs. Mustard 6/-, 1½ cwt. Pot Barley 16/6	1. 2. 6
B biscuits 8/-, Rice do 1/1, picnic do 2/9, Bread 4/5½	-.16. 2½
55 pipes 6d, Indigo blue 1/6, 3 lbs. Washing Soda 2½d	-. 2. 2½
Yellow Ochre 5/1, 29 Bars Soap 139 lbs. £2.18s.	3. 3. 1
29½ lbs. Sugar 14/4, Rotten Stone 1/6	-.15.10
78 lbs. Loaf Sugar £2.5/6, 23 lbs American Cheese 11/6d	2.17. -
94½ lbs. Gouda Cheese £2.3., 4 lbs Kanter " 8/6d	2. 8. 6
3 " Gloucester " 1/9, 65½ " Common 18/-	-.19. 9
10 " Onions 10d, 5 lbs. 6 oz. Tobacco 19/6d	1. 0. 4
14 oz. Small tobacco 3/6, 115 pkges blacking 3/6	-. 7. -

Forward

Forward:

20 lbs. Whitening 8d, 10 lbs pork ham 5/-	-. 5. 8
10 lbs. Beef ham 5/10, $\frac{1}{2}$ Cask Butter £2.15/-	3. -.10
1 Chest Tea £14.14/-, 10 quires printed tea paper 2/6	14.16. 6
11 quires tea paper 2/-, 12 quires gray paper 2/3	-. 4. 3
30 " blue " 5/3, 9 shuttles No. 5 7/6	-.13. 9
10 Shuttles No. 6 10/10, 3 " No. 3 3/6	-.14. 4
22 pairs Weavers Brushes £4. -.8, 5 brooms 15/10	4.16. 6
7 besoms 5/10, 12 do 12/-, 12 do 14/-	1.11.10
3 black besoms 3/6, 2 Scrubbing brushes 10d	-. 4. 4
2 black lead brushes 9d, 8 Grate do 10/8	-.11. 5
1 Cwt of Sago	1. 8. -
$\frac{3}{4}$ bag of flour £1, 1/3rd bag of do 10/-	1.10. -
$\frac{1}{2}$ bar blue ochre 2/-, $\frac{1}{2}$ do Whitening 2/-	-. 4. -
20 Cakes Calmstone 1/-, 6 lbs Carvie Sweeties 4/2 $\frac{1}{2}$	-. 5. 2 $\frac{1}{2}$
44 $\frac{1}{2}$ lbs Carbonate of Soda 11/3, 18 lbs Tea Lead 2/7 $\frac{1}{2}$	-.13.10 $\frac{1}{2}$
4 pairs of Scales+Weights 16/-, 10 Soupes 2/9	-.18. 9
2 Snuff Cans 6d, 4 Tea Canisters 3/-, 1 Window Glafs 4d	-. 3.10
2 Tobacco Canisters 1/3d, 1 Coffee mill 6/-, 1 Set Drawers £1.10/-	1.17. 3
1 Set Drawers 7/6, 2 Counters £2.15/-, Meal Girmel £1	4. 2. 6
1 Desk 3/6, Shelves 6/-	-. 9. 6

£74. 1. 8.

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Record Office.

- I. Processes, sederunt books and petitions in Sequestrations.
- II. Board of Trade Papers.
- III. Papers of the Board of Trustees.

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Other manuscripts, printed sources, books and articles.

I. PROCESSES and SEDERUNT BOOKS in SEQUESTRATIONS

	<u>Year</u>	<u>Ref. No.</u>
<u>Extracted Processes</u>		
Charles Arthur and Sons, Flax Spinners, Kirkcaldy & Kinghorn	1837	CS46/73/Mar./1838
William Bisset & Co, Flax spinners, Leven Spinning Mills	1837	CS46/94/Jan.1838
William Drummond, Flax spinner at Balgonie Mill	1811	CS 32/3/57
Alexander Glenday jn. Millspinner, Cupar	1837	CS46/41/Apr.1840
Charles Hunt, Merchant, Dunfermline, Partner of J. & G. Spence, Dunfermline	1817	CS44/Nov.1824
James Kirkland, Table Linen Manufacturer, flax spinner & Merchant, Dunfermline	1836	CS46/30/Aug.1836
Alexander Robertson, Flax spinner, Sinclairtown	1826	CS44/August 1826.
James Robertson, Flax dresser and Manufacturer, Dysart	1819	CS34/24/50.
James Robertson, jn. Merchant, Dysart	1824	CS44/July 1825
James Stuart of Dunearn, W.S. and Banker	1828	CS46/11/Jun.1833
Walter Swayne, Manufacturer, Dysart	1821	CS44/June 1824
George Wilson, Flax spinner and flax and yarn dealer, Haugh Mill	1837	CS46/98/Mar.1840

Unextracted Processes

James Archibald, Flax spinner, Kirkcaldy	1836	CS231/A/1/32
James Kyd, Writer, Cupar and manufacturer of and dealer in brick & tile	1827	CS230/K/1/20
George and Thomas Kinnell, Millspinners, Dunfermline	1838	CS236/K/9/15
John McGregor, Manufacturer, Kettle	1836	CS236 M/6/7
George Miller, Merchant, Kirkcaldy	1799	CS230 M/1/12
Andrew Morgan, Merchant and Dealer in flax, Kirkcaldy	1820	CS234 M/4/15
A. & W. Thomson, Manufacturers, Dubbyside	1819	CS235/T/1/30

PETITIONS for SEQUESTRATION in BILL CHAMBER

	<u>Year</u>	<u>Ref. No.</u>
Robert Donaldson, Manufacturer and Cloth Merchant, Pitlessie	1849	CS278/1/33
John Annan, Flax spinner, Lydoxmill	1854	CS 279/100
James Winlay, jun. farmer and cattle dealer, Kinross, dealer in flax waste, Leslie	1846	CS 279/39
R.H. Robertson, Manufacturer, Dunfermline, Merchant, Manchester & London	1854	CS 279/2271
David Scott, Powerloom manufacturer, Dunfermline	1848	CS 279/259
David Scott, Manufacturer, Craigrothie	1851	CS 279/2549

PROCESSES of SEQUESTRATION in BILL CHAMBER

Charles Arthur & Sons, Yarn Spinners, Kirkcaldy	1842	CS 280/10/4
William Bairner, Manufacturer, Cupar	1853	CS 280/40/13
David Birrell, Yarn merchant, Manufacturer, Insurance Agent, Dunfermline, Table Linen Merchant, Oxford Street, London	1854	CS 280/43/67
John Bremner, Manufacturer and Merchant, Kirkcaldy	1842	CS 280/18/3
David Dobie, Bleacher and Yarn merchant, Haugh Bleachfield	1841	CS 280/10/14
Henry Glass, Manufacturer, Linktown	1855	CS 280/42/90
James Hutchison, Manufacturer, East Wemyss	1839	CS 280/2/2
John Inglis, Manufacturer, Dairsie	1848	CS 280/11/26
James Lyell, Manufacturer, Newburgh	1849	CS 280/13/43
David and William Millie, Manufacturers, Pathhead	1851	CS 280/38/99
Alexander Russell & Son, Engineers and Ironfounders, Kirkcaldy	1850	CS 280/38/135
Alexander Selcraig, Manufacturer, Dysart	1841	CS 280/18/11
Joseph Senior, Sometime merchant in Prinlaws	1846	CS 280/11/62
James Troup and Sons, Manufacturers and Merchants, Strathmiglo	1848	CS 280/13/79.
J. and J. White, Manufacturers, Auchtermuchty	1846	CS 280/7/73

PROCESSES TRANSMITTED to the ACCOUNTANT of COURT
in BANKRUPTCY

	<u>Year</u>	<u>Ref. CS 318</u>
James Annan and Co, Flax spinners, Pitscottie Mill	1872	18/7
George Birrell, Manufacturer, Dunfermline	1857	6/15
James Birrell, Merchant, Kirkcaldy	1860	19/18
Alexander Boswell and Co, Spinners and Net Manufacturers, Hawkslaw Works, Leven	1861	7/26
William Boyd and Co, Chemical Manufacturers, Thornton	1895	42/25.
Bryce and Ferguson, Manufacturers, Dunfermline	1858	6/16
A. Cameron and Son, Manufacturers, Freuchie	1860	6/52
Mitchell Carmichael, Bleacher, Haugh Bleachfield, Windygates	1876	21/96
Louis Chiffelle, Machine maker, Kirkcaldy	1874	20/68
Cleghorn and Walker, Spinners, Manufacturers and Merchants, Ferryport on Craig	1867	13/55
James Couper, Callenderer, Dunfermline	1880	27/78
Crossgates Cooperative Society	1869	15/63
John Darling, Manufacturer, Dunfermline	1860	11/61
Alexander Davidson, Bleacher, Tyrie	1904	50/73
David Dobie and Sons, Woolen Manufacturers, Rothes Mills	1869	15/92
Robert Drysdale, Table Linen Manufacturer, Dunfermline	1877	24/127
John Eadie, Flax spinner and dealer in yarns, Durie Mill, Leven	1860	5/104
John Emslie, Manufacturer and Commission agent, Dunfermline	1860	4/97
Alexander Gilchrist, Spinner, Rothes Mills, Leslie	1872	20/144
James Ireland, Baker, Leslie	1875	19/135
John Jackson, Papermaker, Leslie	1858	12/192
Robert Kay, Woolspinner at Balbirnie, Woolmill	1858	5/164
Robert Kirk, sen, Yarn spinner and merchant at Rothes Mills, and cattle Dealer and Grain Merchant at Easter Finglassie	1835	17/177
David Lister, Grocer, Prinlaws	1865	10/203
David Lornie and Sons, Spinners and Manufacturers, Pathhead	1881	26/219
Henry Meldrum, Manufacturer, Dunfermline	1858	4/174
William Meldrum and Sons, Spinners, Tayport	1874	20/252
George McDonald, Dyer, Cupar	1857	5/209
David McGregor and Co, Shuttle and Bobbin Manufacturers, Gateside	1870	17/252
O'Brien and Nicol, Bleachers, Ceres	1897	46/287
Andrew/		

	<u>Year</u>	<u>Ref. CS 318</u>
Andrew Ramsay, Surgeon, Leslie	1859	5/286
Robert Reddie, Baker, Leslie	1869	14/366
James Reekie, Manufacturer, Falkland	1867	13/297
James Reekie, " "	1873	18/265
Alexander Rintoul, Flax merchant, Leslie	1884	30/250
Thomas Russell, Engineer, Kirkcaldy	1866	12/345
John Smith, Manufacturer, Hilton, by Kettle	1857	2/184
Robert S. Smith, Manufacturer, Walkeston Mills	1867	12/376
Robert S. Smith " " "	1867	19/249
William Smith and Son, Manufacturers, Cupar	1859	3/289
William Smith and Son " "	1878	24/531
John Speedie (Deceased) of Eastbank, Bleacher, Lochty Bleachfield	1883	32/372
Robert Speedie and Sons, Linen Manufacturers, Sinolairtown	1886	33/303
Staig and Stuart, Merchants in Kirkcaldy, Spinners at Balgonie	1861	7/311
Andrew Stenhouse, Dyer, Links, Kirkcaldy	1877	23/432
George Thomson, Manufacturer, Strathmiglo	1857	5/344
James Troup and Son, Manufacturers, Strathmiglo	1859	4/310
Alexander Don Watson, Hemp spinner, Kirkcaldy	1884	30/317
Henry Smyth Watson, Millspinner, Pitscottie	1877	25/651
Henry Smyth Watson, Bleacher, Haugh Bleaching Co., Windygates	1896	45/323
John Cobb Watson, Flax spinner, Blebo works	1898	45/328
Walter Williamson (Deceased) of Williamson and Dorat, Manufacturers, Ladybank	1888	37/326
George Wilson, Flaxspinner, Haughmills, Windygates	1860	11/342
David Yule, Millspinner, Abbotshall Mills	1897	43/333

MISCELLANEOUS PRODUCTIONS, separated from their processes

	<u>Year</u>	<u>Ref</u> <u>No. CS96/</u>
<u>Sederunt Books</u>		
Charles Alexander, Manufacturer and Merchant, Kirkcaldy	1834	315
Bennet. Merchant, Dysart	1786	56
Thomas Chalmers and Co. Manufacturers, Auchtermuchty	1811	697
Robert Guthrie, Merchant, Cupar	1820	359
David Kirk, Cattle dealer, Corn Dealer, and farmer, Spittal	1826	381
David Melville, Manufacturer, Cupar	1803	707
Robert Mudie, Flax spinner, Balmule, Dunfermline	1832	2066
New Balgonie Iron Co.	1812	203
David Russell, Durie Foundry	1817	817
Robert Russell, Ironmonger, Kirkcaldy	1830	873
Robert Scott, Flax spinner, Lebanon	1826	785
Scott and Taylor, Flax spinners and Bleachers, Kirkcaldy, Nr. Cupar	1839	791
William Stark, Merchant, Auchtermuchty	1819	1130
James Watson, Draper, Cupar	1826	1261
John Wilson and Son, Merchants, Dunfermline	1815	802
Wishart and McCash, Drapers, Kirkcaldy	1839	864
Thomas Wright, Flax spinner and Bleacher, Prinlaws	1807	1057

Other Productions

Thomas Chalmers and Co. Report in the M.P.	1826	1210
Innkeeper in Rotterdam, Account Book	C 1710	1945
Goodsir and Adamson, Manufacturers, Cupar Account Book	1806-12	1166
Archibald Johnston, Merchant, Leuchars, Account Book	1782-8	1840
James Wilson, Ledger produced in his Cessio Bonorum	1802-11	1734
do do	1811-14	1735

II. BOARD of TRADE PAPERSDissolved Companies

	<u>Year of Incorporation</u>	<u>Ref: HF2/</u>
The Auchtermuchty Manufacturing Co.	1862	104
The Boase Spinning Co.	1884	1541
The Burntisland Oil Co.	1893	2469
The Dundee Mortgage and Trust Investment Co.	1876	671
The Fife Linoleum and Floorcloth Co.	1894	2814
The Fife Linoleum Co.	1904	5734
Ireland Ramsay and Co.	1876	673
John Barry Ostlere and Co.	1880	999
John Barry Ostlere and Co.	1888	1812
The Kinglassie Linen Co.	1883	1208
The Kirkcaldy Spinning Co.	1898	3812
The Kirkcaldy Building and Heritable Security Co.	1872	463
The Kirkcaldy Linoleum Co.	1878	821
James Matherson and Son	1902	5228
James Normand and Son	1881	1016
The North British Floorcloth Co.	1872	462
The Patent Floorcloth Co.	1873	517
The Pathhead Spinning Co.	1883	1218

III. BOARD of TRUSTEES for FISHERIES, MANUFACTURERS and
IMPROVEMENTS in SCOTLAND. (N.G. 1.)

Minutes of Board Meetings, 1764 - 1830 NG 1/1/18 - NG 1/1/35
 Letter Books, 1783 - 1829 NG 1/3/14 - NG 1/3/23
 States of the Annual Progress of the Linen Manufacture, 1727-1754, NG 1/14
 Returns and Reports by Stampmasters on Linen cloth stamped in
 Scotland, NG 1/15/1 and 2.
 Reports by Stampmasters on Lintmills, NG 1/19
 Printed copy of a letter to the Board of Trade concerning the stamping
 of Linen and documents referred to therein, 1823 NG 1/21/1
 Registers of Premiums awarded, 1729-1843, NG 1/42
 Premium "Black Book", NG 1/44/1
 Different modes of Premiums 1772-1783, NG 1/60/19
 Quantity of flaxseed imported into Scotland, 1789-1798, NG 1/60/29.
 Quantity of flax, hemp and hempseed imported into Scotland, 1789-1798,
 NG 1/60/30.
 Quantity of Lintseed and Hempseed imported into Scotland, 1765-1800,
 NG 1/60/33.
 Report by David Blair, General Surveyor, 1820, NG 1/60/54
 Counter memorial for Seventy Dundee Merchants and Manufacturers,
 1820. NG 1/60/65/6.
 Minutes of Evidence, Select Committee of the House of Lords on the
 amending of the Linen regulations, 1823 NG 1/60/78

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 Leven and Melville Papers, GD 26.
 Rothes Papers, GD 204, Especially Box 68.
 James Stuart of Dunearn, Letter Book, GD1/555/1.
 Wardlaw Ramsay of Tillycountry Papers N.R.A. 0227.

Cupar Sheriff Court, Registers of Sequestrations.
 Dunfermline Sheriff Court, Register of Sequestrations.
 Inventories, Fife.
 Sasines, 1781-1900.

Court of Session, Unextracted Processes

Bill of Suspension and Interdict, Christie v. Wemyss, 1789.
 CS 271/43604.
 Christie v. Wemyss 1790 CS 229/C/4/66.
 Drummond v. Neilson, 1817 CS 239/D/24/12.
 Petition for Walter Fergus, 1792.
 Multiple Poinding, Goodsir Adamson and Co., 1813, CS 251/3432.
 Greig v. Robertson, 1799. CS 236/G 12/1.
 Stark v. Heritors of Leven, CS 238/S/12/84.
 Stark v. Waring, 1770, CS 238 S/5/30.
 Wemyss v. Peter, 1826, CS 232/W/23/2.

II. At the National Library of Scotland

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 United Presbyterian Church, Kinross 1887-1894, gifted, 1973.
 Fergus Papers, Acc 3764.
 Halket of Pitfirrane Papers, MS 6480.
 Alexander Houston and Co, Merchants, Glasgow, Ledger. MS 8795.
 Case of James Stuart of Dunearn, W.S., 1822, MS 9/1/1.

Letters

W. Arbuthnot, Secretary to the Board of Trustees to Lord Melville,
 26/3/1825, MS 1058, f.189.
 James Heggie, Kirkcaldy, to W. Berry, W.S., Edinburgh, 7/12/1800,
 MS 5319, f.131.
 Charles Latham and Co, Havre, to John Fergus 7/12/1840, MS 9813,
 f. 94/5.
 Thomas Leys Hadden, Glasgow to G. Wilson, Prinlaws, 16/4/1849,
 MS 9183, fl.
 P.D.Swan, /

II. (Continued)Letters (Continued)

P.D. Swan, to Prof. Morson, 19/11/1875, MS 1778, f.57.
 William Swan to Thomas Carlyle, 16/12/1819, MS 1764, f, 135.
 J. Wemyss, Kirkcaldy, to Wilsons of Bannockburn, MS 6752, f, 191.
 Wilsons of Bannockburn, to John Fergus and Sons, Merchants,
 Kirkcaldy, 7/8/1781, MS 9670, f 40, V.

III. At Edinburgh University, Department of Economic History.

Fife Har, 1795-1854.

IV. At the Guildhall Library, London

Sun Fire Insurance Co, Policy Registers, County Series, MS 11937.

V. At the St. Andrews University Library

Cheape of Rossie Papers.

VI. At the Stafford County Record Office.

Sutherland Papers, D 593/K/1.

VII. At the Headquarters of the Scottish Cooperative Society

Minute Book of the Auchtermuchty and Vicinity Cooperative
 Provision Co. (Ltd.) 1875-1888.
 Minute Book of the Kettle Baking Society, 1841-1876.
 Book of the Kingskettle Provident Association, 1827-1836; The
 Kettle Joint Stock Meal Society, 1840-1843; The Kettle
 Cooperative Society, 1843-1872.

VIII. At the Victoria & Albert Museum, Print Room

Joseph Neil Paton, Damask Sketches, T.106.

IX. At the Sheriff Courts of Gumer and Kirkcaldy

Registers of Sequestrations.

X. At the Registrars' Offices Gumer and Dunfermline

Registers of Births, Deaths and Marriages for Kemback, Kinghorn,
 Leslie and Dunfermline.

XI/

XI. At the Royal Bank Buildings, Leven

James Grossett, Clerk to the River Leven Trustees.
Sederunt Books of the River Leven Trust 1827-1923 (1843-1863
missing)
Letter Book, 19/3/1831 - 11/7/1842.

XII. At Dunfermline Public Library

Books of the Incorporation of Weavers of Dunfermline, Five vols.
1596-1858.
Minute Book of the Niffler Society of Dunfermline, 1835-1855.
Woodhead Street Funeral Society, Account Book, 1866-1940.

XIII. At the Treasurer's, The Lodge King Robert the Bruce, Ancient Order
of Foresters, Dunfermline

Minute Book, 1885 - 1891.
Members roll, as rewritten, 1912.

XIV. At Kirkcaldy Public Library

I. Manuscripts

Beveridge, A. Pathhead Seventy years ago, MSS, Kirkcaldy 1938.
Bills of Lading, 1753.
John Hutchison Papers, Letter Book 1809-1843,
Letter Book 1844-1853
Miscellaneous papers, mostly title deeds.
Petition of the Manufacturers, Weavers of Linen and Buyers of
Linen in the District of Leven 1823.

II. Other miscellaneous material

Notes of a tour through the Shires of Fife, Forfar, Perth and
Stirling in 1800, privately printed, 1908.
Press cuttings, 11 vols. 1891-1918 collected by R.C. Leckhart,
Linen Manufacturer.
Proceedings of a meeting of the inhabitants of Kirkcaldy and its
vicinity for a Reform in Parliament, held in the Burgher
Meeting House, Linktown on Thursday 5th December 1816.
Proceedings of a Meeting in Linktown of Kirkcaldy 3/11/1819, to
take into consideration the proceedings at Manchester,
Printed in Edinburgh, 1819.

XV. At the Kirkcaldy Museum and Art Gallery

Bill of Lading, December 1772.
 Linktown Weavers Society, Minute Book, 1748-1789.
 Account Book of the Linktown Weavers, 1789-1867.
 McDonald J. Journal of a voyage to St. Petersburg, 1835.
 Michael Nairn, Cash Book No. 4. 1840-1848
 Ledger (parts of) 1841-1852.
 Rothes Papers.

XVI. Business Papers in the hands of Companies, Institutions, and Individuals

At South Mills (Flax) Ltd. (now part of Sidlaw Industries Ltd.)

Boase, P.M. The Early History of the Boase Spinning Co. Ltd.
 Typescript.

Fergus Papers

At the Multimedia Centre, Kennoway.
 Bundle of Invoices, flax purchases, 1888-9.
 Miscellaneous vouchers.
 Wages Sheets, 22nd and 29th July, 5th and 12th
 August, 1858.

Mr. Devlin's, Glenrothes

Letter, James Aytoun to Chas. Arthur and Sons,
 14/10/1835.

Mr. Mackie's, Kirkcaldy

Wages Sheet. 2nd and 9th Sept. 1858.

At Glenwood, School, Glenrothes.

Regulations to be observed by the flax dressers
 employed at Prinlaws, 1827.

At Messrs. Moir, Forbes and Guy, W.S., Glasgow

Papers of James Porter's Trust Estate.

William Bett, Leslie.

Ledger 1850-1852.

Alistair/

XVI. (continued)

Alistair Cairns, Glenrothes,

Eric Stephen, Letters and Postcards, 1856-1942
Letter, David Landale to John Fergus 14/11/1856.

At Kirkcaldy Technical College. Department of General Studies

John Fergus and Sons, Kirkcaldy, Day Book and Journal,
1813-1825.

East Prinlaws Mill, Wages Book, 1878-1880.

Small book, J. Fergus, Esq. In Account with G. Elder, Kirkcaldy
Miscellaneous vouchers etc, 1839-1903.

At Robert Steaks and Co. (Ltd.) Kirkcaldy

Balance Sheet 30/5/1896.

Cash Book No. 1, 1811-1833.

Day Book No. 1 1811-1816

Letter Book 1819-1827

Manufacturing Book, 1805-1813

Sales Ledgers, 8 vols. 1823-1907

Wages Books 10 vols. 1887-1916.

At Messrs. Stuart, Cairns and Cairns, W.S., Edinburgh

Balgonie Works, Letter Book, 1884-1906.

Cash Book 1884-1886

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XVII. Oral Evidence

Mr. Mackie, Abbotshall Road, Kirkcaldy

Mr. Forester, William Street, Kirkcaldy.

XVIII. THESES

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- Paton D. History of Dunf. MSS 1813.
- Apprentice Regulations. (Dunfermline, 1838)
- Statement of the Weavers' Committee detailing the Proceedings in Reference to Wages, since July 1837 (Dunfermline 1838)
- To the Manufacturers of Dunfermline by An Operative (Dunfermline 1839).
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